

WATER-RESOURCES REPORTS PREPARED BY OR IN COOPERATION WITH THE  
U.S. GEOLOGICAL SURVEY, KANSAS, 1886-1983

Compiled by L. J. Combs

---

U.S. GEOLOGICAL SURVEY

Open-File Report 84-609



Lawrence, Kansas

1984

UNITED STATES DEPARTMENT OF THE INTERIOR

WILLIAM P. CLARK, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

---

For additional information  
write to:

District Chief  
U.S. Geological Survey, WRD  
1950 Constant Avenue - Campus West  
University of Kansas  
Lawrence, Kansas 66046  
[Telephone: (913) 864-4321]

Copies of this report can  
be purchased from:

Open-File Services Section  
Western Distribution Branch  
U.S. Geological Survey  
Box 25425, Federal Center  
Denver, Colorado 80225  
[Telephone: (303) 234-5888]

## CONTENTS

	Page
Introduction - - - - -	1
Periodic reports - - - - -	3
Alphabetical listing by author - - - - -	5
Listing by publication series - - - - -	37
U.S. Geological Survey - - - - -	37
Annual reports - - - - -	37
Bulletins - - - - -	38
Circulars- - - - -	38
Geologic atlases - - - - -	38
Hydrologic investigations atlases - - - - -	39
Journal of Research - - - - -	40
Professional papers - - - - -	40
Water-supply papers - - - - -	41
Water-resources investigations reports - - - - -	43
Water-resources investigations, open-file reports - - - - -	45
Techniques of water-resources investigations - - - - -	46
Open-file reports - - - - -	46
Water Resources Division bulletins - - - - -	50
Water-data reports - - - - -	50
Miscellaneous publications - - - - -	51
Kansas Department of Health and Environment - - - - -	51
Bulletins - - - - -	51
Kansas Geological Survey - - - - -	52
Bulletins - - - - -	52
Basic-data series, ground-water releases - - - - -	58
Chemical quality series - - - - -	59
Ground-water series - - - - -	59
Irrigation series - - - - -	60
Journals - - - - -	60
Computer contributions - - - - -	61
Special distributions publications - - - - -	61
Volumes - - - - -	62
M-series maps - - - - -	62
Open-file reports - - - - -	62
Miscellaneous publications - - - - -	63
Kansas Water Office - - - - -	63
Bulletins - - - - -	63
Technical reports - - - - -	64
Progress reports - - - - -	65
Kansas Water News - - - - -	65
State water plan studies - - - - -	66
Scientific journal articles - - - - -	66
Listing by year of publication - - - - -	69
Subject index- - - - -	107

## ILLUSTRATIONS

	Page
Figure 1. Map showing location of offices of the U.S. Geological Survey in Kansas - - - - -	2

WATER-RESOURCES REPORTS PREPARED BY OR IN COOPERATION WITH THE  
U.S. GEOLOGICAL SURVEY, KANSAS, 1886-1983

Compiled by

L. J. Combs

INTRODUCTION

The Organic Act of March 3, 1879, established the U.S. Geological Survey as a separate Bureau of the Department of the Interior. The Survey's principal mission became (1) the classification and survey of public lands, (2) the examination of the geologic structure and the mineral resources of the national domain, and (3) the determination of the water resources of the United States. Seven years later, in 1886, the first water-resources investigation by the U.S. Geological Survey in Kansas was completed by A. C. Peale. A cooperative program with the Kansas State Board of Irrigation and Surveys instituted the first stream-gaging stations in western Kansas during 1895. The gaging program later was extended to eastern Kansas in 1899.

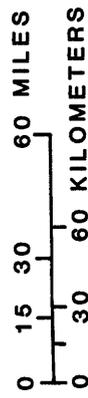
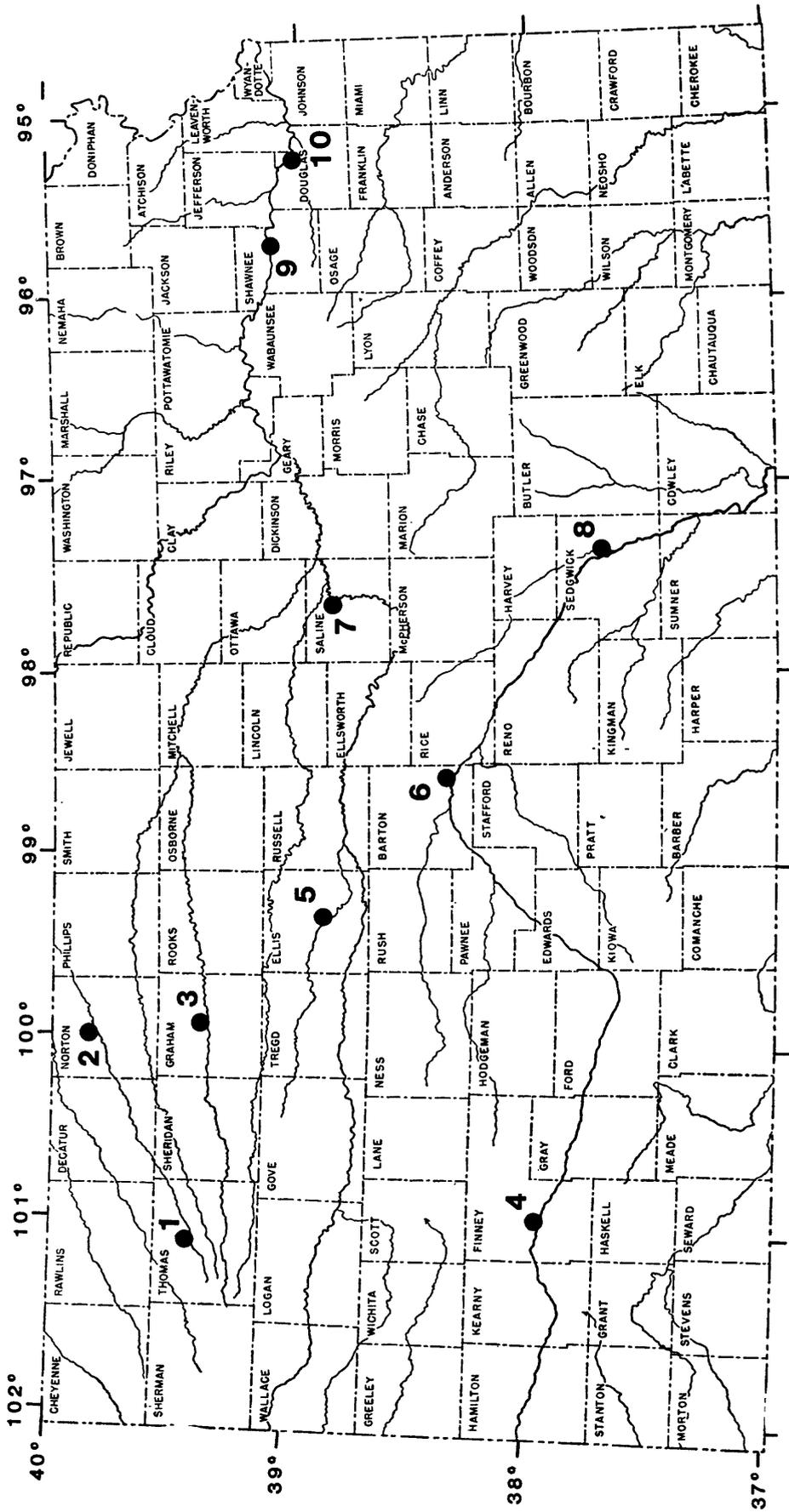
From these early beginnings, the Water Resources Division of the U.S. Geological Survey has expanded its work in Kansas to meet the growing demand for scientific data by Federal, State, and local agencies for use in the planning and management of one of the State's most precious resources--water. The Kansas District of the Water Resources Division, with headquarters in Lawrence and a subdistrict office in Garden City (fig. 1), continues to investigate the occurrence, quantity, quality, distribution, and movement of surface and ground waters. Its activities still include the systematic collection, analysis, and interpretation of data; the investigation of water demand for public supply, industrial, domestic, and agricultural purposes; and the research and development of new techniques to improve the scientific basis of data collection and investigative principles.

Moneys for program operation of the U.S. Geological Survey in Kansas have come from joint-funding agreements with State and local agencies, transfer of funds from other Federal agencies, and direct Federal allotments to the U.S. Geological Survey.

Water-resources data and the results of hydrologic investigations in Kansas are published or released either by the U.S. Geological Survey, by cooperating agencies, or by journals of technical and scientific organizations. Requests for publications resulting from investigations of the U.S. Geological Survey in Kansas should be addressed to one of the following:

District Chief  
U.S. Geological Survey  
Water Resources Division  
1950 Constant Avenue - Campus West  
Lawrence, Kansas 66046  
Telephone: (913) 864-4321

Subdistrict Chief  
U.S. Geological Survey  
Water Resources Division  
206 Fulton Terrace  
Garden City, Kansas 67846  
Telephone: (316) 275-4123



- 1** Colby (1965-72)
- 2** Norton (1947-58)
- 3** Stockton (1958-65)
- 4** Garden City (1958-present)

- 5** Hays (1965-67)
- 6** Ellinwood (1956-65)
- 7** Salina (1958-83)

- 9** Topeka (1917-21, 1923-27, 1942-68)

- 10** Lawrence (1966-present)

Figure 1.--Location of offices of the U.S. Geological Survey in Kansas.

Book reports or maps that are out of print (as indicated by an asterisk in the accompanying lists) can no longer be purchased from any official source but may be consulted at many public- or educational-institution libraries throughout the country.

### PERIODIC REPORTS

This section lists reports that were published periodically and required routine work on the part of U.S. Geological Survey personnel.

U.S. Geological Survey, Compilation of surface water records [Kansas]: Water-Supply Papers 1310, 1311, \*1730, and \*1731.

U.S. Geological Survey, Surface water supply of the United States, 1899-1960 [Kansas]:

Year	WSP	Year	WSP	Year	WSP
1899	*37	1921	*526	1941	*926
1900	*49, *50 <sup>a/</sup>	1922	*546	1942	*956
1901	*66, *75	1923	*566	1943	*976
1902	*84	1924	*586	1944	*1006
1903	*99	1925	*606	1945	*1036
1904	*130, *131 <sup>b/</sup>	1926	*626	1946	1056
1905	*172	1927	*646	1947	*1086
1906	*208	1928	*666	1948	1116
1907-8	*246	1929	*686	1949	1146
1909	*266	1930	*701	1950	*1176
1910	*286	1931	*716	1951	*1210
1911	*306	1932	*731	1952	*1240
1912	*326	1933	*746	1953	*1280
1913	*356	1934	*761	1954	1340
1914	*386	1935	*786	1955	*1390
1915	*406	1936	*806	1956	1440
1916	*436	1937	*826	1957	1510
1917	*456	1938	*856	1958	1560
1918	*476	1939	*876	1959	1630
1919-20	*506	1940	*896	1960	*1710

<sup>a</sup> Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.

<sup>b</sup> Platte and Kansas Rivers.

U.S. Geological Survey, Quality of surface waters in the United States, water years, 1941-65 [Kansas]: Water-Supply Papers

Year	Part number		Year	Part number	
	6	7		6	7
1941	*942	*942	1953	1291	1292
1942	*950	*950	1954	1351	1352
1943	*970	*970	1955	1401	1402
1944	*1022	*1022	1956	1451	1452
1945	*1030	*1030	1957	1521	1522
1946	*1050	*1050	1958	1572	1573
1947	1102	1102	1959	1643	1644
1948	1132	1133	1960	1743	1744
1949	1162	*1163	1961	1883	1884
1950	1187	1188	1962	1943	1944
1951	1198	1199	1963	1949	1950
1952	1251	1252	1964-65	1959	1960

U.S. Geological Survey, Quality of surface waters for irrigation, western states: Water-Supply Papers

Year	WSP	Year	WSP
1951	*1264	1959	1699
1952	1362	1960	1746
1953	1380	1961	1886
1954	1430	1962	1946
1955	1465	1963	1952
1956	1485	1964	1960
1957	1524	1965	1967
1958	1575		

U.S. Geological Survey, Ground-water levels in the United States, north-central States: U.S. Geological Survey Water-Supply Papers

Year	WSP	Year	WSP
1940	*908	1950	1167
1941	*938	1951	1193
1942	*946	1952	1223
1943	*988	1953	*1267
1944	*1018	1954	1323
1945	*1025	1955	1406
1946	*1073	1956	1456
1947	*1098	1957-61	1781
1948	1128	1962-66	1976
1949	1158		

U.S. Geological Survey, Water levels and artesian pressure in observation wells in the United States: U.S. Geological Survey Water-Supply Papers \*777, \*817, \*840, \*845, and \*886.

## ALPHABETICAL LISTING BY AUTHOR

- Albert, C. D., 1962, Sediment investigations in Kansas: Kansas Water News, v. 5, no. 4, p. 5-7.
- \_\_\_\_\_ 1964, Brine in surface water of the Little Arkansas River basin, Kansas: Kansas State Department of Health Bulletin No. 1-5, 15 p.
- \_\_\_\_\_ 1969, Total sediment discharge, a compilation: Kansas Water Resources Board Bulletin No. 10, 8 p.
- \_\_\_\_\_ 1973, Fluvial sediment characteristics of the Kansas River at Wamego, Kansas, 1957-70: U.S. Geological Survey open-file report, 13 p.
- \*Albert, C. D., and Stramel, G. J., 1966, Fluvial sediment in the Little Arkansas River basin, Kansas: U.S. Geological Survey Water-Supply Paper 1798-B, p. B1-B30.
- Albin, D. R., 1975, Water resources alternative study areas, proposed Prairie National Park, Kansas-Oklahoma, in Preliminary environmental assessment, alternative study areas, proposed Prairie National Park, Kansas-Oklahoma (appendix D): U.S. Department of Interior, National Park Service, 32 p.
- Angino, E. E., and Morgan, C. O., 1966, Application of pattern analysis to the classification of oil-field brines, in Merriam, D. F., ed., Computer applications in the earth sciences: Colloquium on classification procedures: Kansas Geological Survey Computer Contributions 7, p. 53-56.
- Baker, C. H., Jr., 1979a, New instrumentation for the National Water-Use Data Program: U.S. Geological Survey, Water Resources Division Bulletin, October-December 1978, January-June 1979, p. 46-47.
- \_\_\_\_\_ 1979b, Evaluation of methods for estimating ground-water withdrawals in western Kansas: U.S. Geological Survey Water-Resources Investigations 79-92, 70 p.
- \_\_\_\_\_ 1983, Evaluation of techniques for estimating ground-water withdrawals for irrigation in western Kansas: Kansas Water Office Bulletin 26, 14 p.
- Barker, R. A., Dunlap, L. E., and Sauer, C. A., 1981, Analysis and computer simulation of stream-aquifer hydrology, Arkansas River valley, southwestern Kansas: U.S. Geological Survey Open-File Report 81-686, 130 p.
- \_\_\_\_\_ 1983, Analysis and computer simulation of stream-aquifer hydrology, Arkansas River valley, southwestern Kansas: U.S. Geological Survey Water-Supply Paper 2200, 59 p.
- Bayne, C. K., 1956a, Geology and ground-water resources of Sheridan County, Kansas: Kansas Geological Survey Bulletin 116, 94 p.
- \_\_\_\_\_ 1956b, Geology and ground-water resources of Reno County, Kansas: Kansas Geological Survey Bulletin 120, 130 p.

- \_\_\_\_ 1958, Ground-water resources of Elk County, Kansas: Kansas Geological Survey, v. 14, pt. 3, p. 37-56.
- \_\_\_\_ 1960, Geology and ground-water resources of Harper County, Kansas: Kansas Geological Survey Bulletin 143, 184 p.
- \_\_\_\_ 1962, Geology and ground-water resources of Cowley County, Kansas: Kansas Geological Survey Bulletin 158, 219 p.
- \_\_\_\_ 1971, Geohydrology of Doniphan County, northeastern Kansas: U.S. Geological Survey open-file report, 21 p.
- \_\_\_\_ 1973, Geohydrology of Doniphan County, northeastern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-462, scale 1: 62,500, 1 sheet.
- Bayne, C. K., Franks, P. C., and Ives, William, Jr., 1971, Geology and ground-water resources of Ellsworth County, central Kansas: Kansas Geological Survey Bulletin 201, 84 p.
- Bayne, C. K., and Schoewe, W. H., 1967, Geology and ground-water resources of Brown County, Kansas: Kansas Geological Survey Bulletin 186, 68 p.
- Bayne, C. K., and Walters, K. L., 1959, Geology and ground-water resources of Cloud County, Kansas: Kansas Geological Survey Bulletin 139, 144 p.
- \*Bayne, C. K., and Ward, J. R., 1967, General availability of ground water in Kansas: Kansas Geological Survey Map M-4, scale 1:500,000, 1 sheet.
- \_\_\_\_ 1969, Saturated thickness and specific yield of Cenozoic deposits in Kansas: Kansas Geological Survey Map M-5, scale 1:500,000, 1 sheet.
- \_\_\_\_ 1974, Geology and hydrology of Rice County, central Kansas: Kansas Geological Survey Bulletin 206, pt. 3, 17 p.
- Bedinger, M. S., and Tanaka, H. H., 1962, Effect of the Kirwin reservoir, Kansas, on ground-water levels: U.S. Geological Survey open-file report, 11 p.
- Berry, D. W., 1952, Geology and ground-water resources of Lincoln County, Kansas, with a chapter on the chemical quality of ground water by W. H. Durum: Kansas Geological Survey Bulletin 95, 96 p.
- Bevans, H. E., 1980, A procedure for predicting concentrations of dissolved solids and sulfate ion in streams draining areas strip mined for coal: U.S. Geological Survey Water-Resources Investigations, Open-File Report 80-764, 17 p.
- \_\_\_\_ 1982, Water-quality and fluvial-sediment characteristics of selected streams in northeast Kansas: U.S. Geological Survey Water-Resources Investigations 82-4005, 53 p.
- Bevans, H. E., and Diaz, A. M., 1980, Statistical summaries of water-quality data for streams draining coal-mined areas, southeastern Kansas: U.S. Geological Survey Hydrologic Data, Open-File Report 80-350, 42 p.

- Bradley, Edward, and Johnson, C. R., 1957, Ground-water resources of the Ladder Creek area in Kansas, with a section on the chemical quality of water by R. A. Krieger: Kansas Geological Survey Bulletin 126, 194 p.
- \*Broeker, M. E., and Fishel, V. C., 1961, Ground-water levels in observation wells in Kansas, 1960: Kansas Geological Survey Bulletin 153, 183 p.
- \* \_\_\_\_\_ 1962, Ground-water levels in observation wells in Kansas, 1961: Kansas Geological Survey Bulletin 159, 166 p.
- Broeker, M. E., McIntyre, H. J., Jr., and McNellis, J. M., 1977, Ground-water levels in observation wells in Kansas, 1971-75: Kansas Geological Survey Basic Data Series, Ground-Water Release 6, 526 p.
- Broeker, M. E., and McNellis, J. M., 1973, Ground-water levels in observation wells in Kansas, 1966-70: Kansas Geological Survey Basic Data Series, Ground-Water Release No. 3, 373 p.
- \*Broeker, M. E., and Winslow, J. D., 1963, Ground-water levels in observation wells in Kansas, 1962: Kansas Geological Survey Bulletin 167, 89 p.
- \* \_\_\_\_\_ 1964, Ground-water levels in observation wells in Kansas, 1963: Kansas Geological Survey Bulletin 173, 94 p.
- \_\_\_\_\_ 1966, Ground-water levels in observation wells in Kansas, 1965: Kansas Geological Survey Bulletin 184, 92 p.
- Burns, C. V., 1967, Kansas streamflow characteristics, part 7, Annual streamflow summary tables: Kansas Water Resources Board Technical Report No. 7, 18 p.
- \_\_\_\_\_ 1971, Kansas streamflow characteristics, part 8, In-channel hydraulic geometry of streams in Kansas: Kansas Water Resources Board Technical Report No. 8, 31 p.
- \_\_\_\_\_ 1975, Kansas streamflow characteristics, temperatures of Kansas streams: Kansas Water Resources Board Technical Report No. 12, 220 p.
- Burns, C. V., Maddy, D. V., Jordan, P. R., and McNellis J. M., 1976, Kansas streamflow characteristics, physical and climatic characteristics along Kansas streams: Kansas Water Resources Board Technical Report No. 13, 41 p.
- \*Busby, M. W., 1963, Yearly variations in runoff for the conterminous United States, 1931-60: U.S. Geological Survey Water-Supply Paper 1669-S, p. S1-S49.
- \* \_\_\_\_\_ 1964, Relation of annual runoff to meteorological factors in Geological Survey Research, 1964, Chapter C: U.S. Geological Survey Professional Paper 501-C, p. C188-C189.
- \_\_\_\_\_ 1966, Annual runoff in the conterminous United States: U.S. Geological Survey Hydrologic Investigations Atlas HA-212, scale 1:7,500,000, 1 sheet.

- Busby, M. W., and Armentrout, G. W., 1965, Kansas streamflow characteristics, part 6A, Base flow data: Kansas Water Resources Board Technical Report No. 6A, 207 p.
- \*Byrne, F. E., and McLaughlin, T. G., 1947, Geology and ground-water resources of Seward County, Kansas: Kansas Geological Survey Bulletin 69, 140 p.
- Carswell, W. J., Jr., 1978a, Hydrologic data for Soldier Creek basin, Kansas: U.S. Geological Survey Water-Resources Investigations 78-87, 26 p.
- \_\_\_\_\_ 1978b, Description of data-collection system and synopsis of selected hydrologic data for Soldier Creek basin, Kansas: U.S. Geological Survey Open-File Report 78-678, 80 p.
- \_\_\_\_\_ 1979, Multiyear low flow in southeastern Kansas: U.S. Geological Survey Water-Resources Investigations, Open-File Report 79-1288, 26 p.
- \_\_\_\_\_ 1981, Selected hydrologic relations for Soldier Creek, northeastern Kansas: U.S. Geological Survey Water-Resources Investigations 81-8, 68 p.
- \_\_\_\_\_ 1982, Storage requirements to sustain gross reservoir outflow from small basins in Kansas: Kansas Water Office Technical Report No. 16, 40 p.
- Carswell, W. J., Jr., and Bond, S. V., 1980, Multiyear low flow of streams in northeastern Kansas: U.S. Geological Survey Water-Resources Investigations, Open-File Report 80-734, 26 p.
- \*Clarke, F. W., 1924, The composition of the river and lake waters of the United States: U.S. Geological Survey Professional Paper 135, 133 p.
- Clement, R. W., 1983, Improvement of flood-frequency estimates for selected small watersheds in eastern Kansas using a rainfall-runoff model: U.S. Geological Survey Water-Resources Investigations Report 83-4110, 22 p.
- Clement, R. W., and Johnson, D. G., 1982, Flood of June 15, 1981, in Great Bend and vicinity, central Kansas: U.S. Geological Survey Water-Resources Investigations Report 82-4123, 9 p.
- Collins, D. L., 1965, A general classification of source areas of fluvial sediment in Kansas: Kansas Water Resources Board Bulletin No. 8, 21 p.
- Culbertson, D. M., 1963, Coordinated water-quality investigations in Kansas: 130th Meeting, Missouri Basin Inter-Agency Commission, 12 p.
- Dabiri, H. E., Green, D. W., and Winslow, J. D., 1970, Digital computer simulation of an aquifer, in Proceedings of Summer Computer Simulation Conference, Denver, Colo., June 10-12, 1970, p. 944-954.
- \*Darton, N. H., 1905a, Preliminary list of deep borings in the United States: U.S. Geological Survey Water-Supply Paper 149, 175 p.

- \* \_\_\_\_\_ 1905b, Preliminary report on the geology and underground water resources of the central Great Plains: U.S. Geological Survey Professional Paper 32, 433 p.
- \* \_\_\_\_\_ 1920, Description of the Syracuse and Lakin quadrangles, Kansas: U.S. Geological Survey Geologic Atlas, Folio 212, 10 p., 6 pl., 7 figs.
- \*Davis, A. P., 1897, Report of progress of stream measurements for the calendar year 1896: U.S. Geological Survey 18th Annual Report, Part IV, p. 1-418.
- \*Davis, S. N., and Carlson, W. A., 1952, Geology and ground-water resources of the Kansas River valley between Lawrence and Topeka, Kansas: Kansas Geological Survey Bulletin 96, pt. 5, p. 201-276.
- Denne, J. E., 1979, Uncovering buried valleys in northeastern Kansas: Kansas Geological Survey, The Journal, v. 1, no. 3, 4 p.
- Diaz, A. M., 1962a, Chemical quality program in Kansas: Kansas Water News, v. 5, no. 3, p. 3-5.
- \_\_\_\_\_ 1962b, Quality of water investigation in the Walnut River basin: Kansas Water News, v. 5, no. 3, p. 6-7.
- \_\_\_\_\_ 1965, Cooperative water-quality investigation, South Fork Ninnescah basin: Kansas Water News, v. 8, no. 3, p. 3-4.
- Dingman, R. J., 1969, Evaluation of the effects of the U.S. Bureau of Reclamation ring dike on the ground-water flow and water quality in the Downs area, Kansas: U.S. Geological Survey open-file report, 19 p.
- Dingman, R. J., and Angino, E. E., 1969, Chemical composition of selected Kansas brines as an aid to interpreting change in water chemistry with depth: Chemical Geology, Amsterdam, v. 4, p. 325-339.
- Dingman, R. J., and Nunez, Jose, 1969, Hydrogeologic reconnaissance of the Canary Islands, Spain in Geological Survey Research, 1969, Chapter C: U.S. Geological Survey Professional Paper 650-C, p. C201-C208.
- Dufford, A. E., 1953, Quaternary geology and ground-water resources of the Kansas River valley between Bonner Springs and Lawrence, Kansas: Kansas Geological Survey Bulletin 130, pt. 1, 96 p.
- Dunlap, L. E., 1980, Simulated water-level declines near Marienthal, west-central Kansas: U.S. Geological Survey Water-Resources Investigations 80-39, 15 p.
- \_\_\_\_\_ 1982, Geohydrology of principal aquifers in the Republican River basin, Kansas: U.S. Geological Survey Open-File Report 82-79, 5 sheets.
- Dunlap, L. E., Kume, Jack, and Thomas, J. G., 1980, Geohydrology and model analysis for water-supply management in a small area of west-central Kansas: U.S. Geological Survey Water-Resources Investigations 80-91, 59 p.

- Dunlap, L. E., Lindgren, R. J., and Sauer, C. G., 1983, Geohydrology and model analysis of stream-aquifer system along the Arkansas River in Kearny and Finney Counties, southwestern Kansas: U.S. Geological Survey Open-File Report 83-222, 84 p.
- Dunlap, L. E., and Spinazola, J. M., 1981a, Hydrologic maps of Ogallala aquifer, west-central Kansas: U.S. Geological Survey Open-File Report 81-908, 4 sheets.
- \_\_\_\_\_ 1981b, Interpolating water-table altitudes in west-central Kansas using kriging techniques: U.S. Geological Survey Open-File Report 81-1062, 51 p.
- Durum, W. H., 1951, Chemical quality of the surface waters in the Saline River basin, Kansas, a progress report: U.S. Geological Survey open-file report, 54 p.
- \_\_\_\_\_ 1953, Relationship of the mineral constituents in solution to stream-flow, Saline River near Russell, Kansas: Transactions of the American Geophysical Union, v. 34, no. 3, p. 435-442.
- Ehlig, Christine, and Halepaska, J. C., 1976, A numerical study of confined-unconfined aquifers including effects of delayed yield and leakage: American Geophysical Union, Water Resources Research, v. 12, no. 6, p. 1175-1183.
- Ellis, D. W., and Edelen, G. W., Jr., 1960, Kansas streamflow characteristics, part 3, Flood frequency: Kansas Water Resources Board Technical Report No. 3, 221 p.
- Ellis D. W., and others, 1963, Floods at Wichita, Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-63, scale 1:24,000, 5 sheets.
- Fader, S. W., 1967, Notes on the shape of the truncated cone of depression in the vicinity of an infinite well field: Kansas Geological Survey Special Distribution Publication 33, 11 p.
- \_\_\_\_\_ 1968, Ground water in the Republican River area, Cloud, Jewell, and Republic Counties, Kansas: Kansas Geological Survey Bulletin 188, 27 p.
- \_\_\_\_\_ 1974, Ground water in the Kansas River valley, Junction City to Kansas City, Kansas: Kansas Geological Survey Bulletin 206, pt. 2, 12 p.
- \_\_\_\_\_ 1975, Land subsidence caused by dissolution of salt near four oil and gas wells in central Kansas: U.S. Geological Survey Water-Resources Investigations 27-75, 28 p.
- Fader, S. W., Gutentag, E. D., Lobmeyer, D. H., and Meyer, W. R., 1964, Geohydrology of Grant and Stanton Counties, Kansas: Kansas Geological Survey Bulletin 168, 147 p.

- Fader, S. W., and Morton, R. B., 1975a, Ground water in the Verdigris River basin, Kansas and Oklahoma: U.S. Geological Survey Open-File Report 75-365, 26 p.
- \_\_\_\_\_ 1975b, Ground water in the Middle Arkansas River basin, Kansas and Oklahoma: U.S. Geological Survey Open-File Report 75-367, 44 p.
- Fader, S. W., and Stullken, L. E., 1976, Geohydrologic maps of the Great Bend Prairie, south-central Kansas: U.S. Geological Survey Open-File Report 76-405, 4 pl.
- \_\_\_\_\_ 1977, Geohydrology of the Great Bend Prairie, south-central Kansas: U.S. Geological Survey Open-File Report 77-305, 53 p.
- \_\_\_\_\_ 1978, Geohydrology of the Great Bend Prairie, south-central Kansas: Kansas Geological Survey Irrigation Series 4, 19 p.
- \*Fent, O. S., 1950, Geology and ground-water resources of Rice County, Kansas: Kansas Geological Survey Bulletin 85, 142 p.
- Fishel, V. C., 1947a, Ground-water resources of Kansas: Transactions of the Kansas Academy of Science, v. 50, no. 2, p. 105-114.
- \_\_\_\_\_ 1947b, Methods used in ground-water investigations in Kansas: Geological Society of America Bulletin, v. 58, no. 12, pt. 2, p. 1273.
- \* \_\_\_\_\_ 1948a, Ground-water resources of the Kansas City, Kansas, area: Kansas Geological Survey Bulletin 71, 109 p.
- \* \_\_\_\_\_ 1948b, Geology and ground-water resources of Republic County and northern Cloud County, Kansas: Kansas Geological Survey Bulletin 73, 194 p.
- \* \_\_\_\_\_ 1952, Ground-water resources of Pawnee Valley, Kansas: Kansas Geological Survey Bulletin 94, 144 p.
- \_\_\_\_\_ 1956, Long-term trends of ground-water levels in the United States: Transactions of the American Geophysical Union, v. 37, no. 4, p. 429-435.
- \* \_\_\_\_\_ 1963, Kansas in McGuinness, C. L., The role of ground water in the national water situation: U.S. Geological Survey Water-Supply Paper 1800, 1121 p.
- \*Fishel, V. C., and Broeker, M. E., 1960, Ground-water levels in observation wells in Kansas, 1959: Kansas Geological Survey Bulletin 146, 174 p.
- \*Fishel, V. C., Gulley, E. L., and Reavis, E. L., 1959, Ground-water levels in observation wells in Kansas, 1958: Kansas Geological Survey Bulletin 141, 146 p.
- Fishel, V. C., and Leonard, A. R., 1955, Geology and ground-water resources of Jewell County, Kansas: Kansas Geological Survey Bulletin 115, 152 p.
- \*Fishel, V. C., and Mason, B. J., 1957, Ground-water levels in observation wells in Kansas, 1956: Kansas Geological Survey Bulletin 125, 158 p.

- \* \_\_\_\_\_ 1958, Ground-water levels in observation wells in Kansas, 1957: Kansas Geological Survey Bulletin 131, 152 p.
- \*Fishel, V. C., Searcy, J. K., and Rainwater, F. H., 1953, Water resources of the Kansas City area, Missouri and Kansas: U.S. Geological Survey Circular 273, 52 p.
- \*Follansbee, Robert, and Spiegel, J. B., 1937, Flood on Republican and Kansas Rivers, May and June 1935: U.S. Geological Survey Water-Supply Paper 796-B, p. 21-52.
- \*Frye, J. C., 1940, A preliminary report on the water supply of the Meade artesian basin, Meade County, Kansas: Kansas Geological Survey Bulletin 35, 39 p.
- \* \_\_\_\_\_ 1941, Reconnaissance of ground-water resources of Atchison County, Kansas: Kansas Geological Survey Bulletin 38, pt. 9, p. 237-260.
- \* \_\_\_\_\_ 1942, Geology and ground-water resources of Meade County, Kansas: Kansas Geological Survey Bulletin 45, 152 p.
- \* \_\_\_\_\_ 1945, Geology and ground-water resources of Thomas County, Kansas: Kansas Geological Survey Bulletin 59, 110 p.
- \*Frye, J. C., and Brazil, J. J., 1943, Ground-water in the oil-field areas of Ellis and Russell Counties, Kansas: Kansas Geological Survey Bulletin 50, 104 p.
- \*Frye, J. C., and Fishel, V. C., 1949, Ground water in southwestern Kansas: Kansas Geological Survey Miscellaneous Publications, 24 p.
- \*Frye, J. C., and Leonard, A. R., 1949, Geology and ground-water resources of Norton County and northwestern Phillips County, Kansas: Kansas Geological Survey Bulletin 81, 144 p.
- \*Frye, J. C., and Walters, K. L., 1950, Subsurface reconnaissance of glacial deposits in northeastern Kansas: Kansas Geological Survey Bulletin 86, pt. 6, p. 141-158.
- Furness, L. W., 1957, Development of a balanced stream-gaging program for Kansas: Kansas Water Resources Bulletin No. 4, 50 p.
- \_\_\_\_\_ 1959, Kansas streamflow characteristics, part 1, Flow duration: Kansas Water Resources Board Technical Report No. 1, 213 p.
- \_\_\_\_\_ 1960, Kansas streamflow characteristics, part 2, Low-flow frequency: Kansas Water Resources Board Technical Report No. 2, 179 p.
- \_\_\_\_\_ 1962, Kansas Streamflow characteristics, part 4, Storage requirements to sustain gross reservoir outflow: Kansas Water Resources Board Technical Report No. 4, 177 p.

- \_\_\_\_\_ 1965a, Small area flood volume study, Rock Creek basin, Meriden, Kans.-- progress report, July 1963 to Feb. 1965: U.S. Geological Survey open-file report, 42 p.
- \_\_\_\_\_ 1965b, Discussion of areal variations of mean annual runoff: American Society Civil Engineers Proceedings 4304, May, p. 336-341.
- Furness, L. W., Burns, C. V., and Busby, M. W., 1964, Kansas streamflow characteristics, part 5, Storage requirements to control high flow: Kansas Water Resources Board Technical Report No. 5, 169 p.
- \_\_\_\_\_ 1966, Kansas streamflow characteristics, part 6B, Base flow distribution: Kansas Water Resources Board Technical Report No. 6B, 139 p.
- \*Furness, L. W., and Busby, M. W., 1967, Two methods of estimating base flow at ungaged stream sites in Kansas and adjacent States in Geological Survey Research, 1967, Chapter C: U.S. Geological Survey Professional Paper 575-C, p. C208-C211.
- \*Gannett, Henry, 1898, A gazetteer of Kansas: U.S. Geological Survey Bulletin 154, 246 p.
- Geiger, C. O., Lacock, D. L., Shelton, L. R., Penny, M. L., and Merry, C. E., 1983, Water resources data, Kansas, water year 1982: U.S. Geological Survey Water-Data Report KS-82-1, 485 p.
- Gillespie, J. B., Green, D. W., and Slagle, S. E., 1970, Artificial ground-water recharge, Wet Walnut Creek, central Kansas--Progress report number two: Kansas Water Resources Board, 28 p.
- Gillespie, J. B., and Hargadine, G. D., 1975, Results of infiltration tests near Scott City, western Kansas: U.S. Geological Survey Water-Resources Investigations 76-12, 29 p.
- \_\_\_\_\_ 1981, Saline ground-water discharge to the Smoky Hill River between Salina and Abilene, central Kansas: U.S. Geological Survey Water-Resources Investigations 81-43, 71 p.
- Gillespie, J. B., Hargadine, G. D., and Stough, M. J., 1977, Artificial-recharge experiments near Lakin, western Kansas: Kansas Water Resources Board Bulletin 20, 91 p.
- Gillespie, J. B., Lindskov, K. L., and Slagle, S. E., 1969, Artificial ground-water recharge, Wet Walnut Creek--Progress report number one: Kansas Water Resources Board, 22 p.
- Gillespie, J. B., and Slagle, S. E., 1972, Natural and artificial ground-water recharge, Wet Walnut Creek, central Kansas: Kansas Water Resources Board Bulletin 17, 94 p.
- Gogel, Tony, 1981a, Discharge of saltwater from Permian rocks to major stream-aquifer systems in central Kansas: Kansas Geological Survey Chemical Quality Series 9, 60 p.

- \_\_\_\_ 1981b, Preliminary data from Arbuckle test wells, Miami, Douglas, Saline, and Labette Counties, Kansas: U.S. Geological Survey Open-File Report 81-1112, 155 p.
- Gutentag, E. D., 1975, Map showing percent change in saturated thickness of unconsolidated aquifer, 1950-76, west-central Kansas: U.S. Geological Survey Open-File Report 76-457, 1 pl.
- Gutentag, E. D., and Galli-Olivier, Carlos, 1969, New locations of Pleistocene (Kansan) molluscan and ostracode faunas, Dickinson County, Kansas, in Geological Survey Research: U.S. Geological Survey Professional Paper 650-D, p. D148-D154.
- Gutentag, E. D., Lobmeyer, D. H., and McGovern, H. E., 1970, Ground water in Kearny County, southwestern Kansas: U.S. Geological Survey open-file report, 40 p.
- \_\_\_\_ 1972, Ground water in Kearny County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-416, scale 1:125,000, 2 sheets.
- Gutentag, E. D., Lobmeyer, D. H., McGovern, H. E., and Long, W. A., 1972, Ground water in Finney County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-442, scale 1:250,000, 3 sheets.
- Gutentag, E. D., Lobmeyer, D. H., and Slagle, S. E., 1978, Map showing saturated thickness of the unconsolidated aquifer, southwestern Kansas, January 1975: U.S. Geological Survey Open-File Report 78-80, 1 pl.
- \_\_\_\_ 1980, Geohydrology of southwestern Kansas: U.S. Geological Survey Open-File Report 80-218, 97 p.
- \_\_\_\_ 1981, Geohydrology of southwestern Kansas: Kansas Geological Survey Irrigation Series 7, 73 p.
- Gutentag, E. D., and Stullken, L. E., 1974, Ground water in Haskell County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-515, scale 1:250,000, 2 sheets.
- \_\_\_\_ 1976, Ground-water resources of Lane and Scott Counties, western Kansas: Kansas Geological Survey Irrigation Series No. 1, 37 p.
- Halepaska, J. C., and Hartman, J. W., 1972, Numerical solution of the three-dimensional heat flow equation: Kansas Geological Survey Bulletin 204, pt. 1, p. 11-13.
- Hauth, L. D., and Carswell, W. J., Jr., 1978, Floods in Kansas City, Missouri and Kansas, September 12-13, 1977: U.S. Geological Survey Water-Resources Investigations 78-63, 43 p.
- \*Haworth, Erasmus, 1897, Underground waters of southwestern Kansas: U.S. Geological Survey Water-Supply Paper 6, 65 p.

- \*Hay, Robert, 1890, A geological reconnaissance in southwestern Kansas: U.S. Geological Survey Bulletin 57, 49 p.
- \* \_\_\_\_\_ 1895, Water resources of a portion of the Great Plains: U.S. Geological Survey 16th Annual Report, Part II, p. 535-588.
- Hedman, E. R., and Kastner, W. M., 1972, Kansas streamflow characteristics, part 9, Mean annual runoff as related to channel geometry of selected streams in Kansas: Kansas Water Resources Board Technical Report No. 9, 25 p.
- \_\_\_\_\_ 1974, Progress report on streamflow characteristics as related to channel geometry of streams in the Missouri River basin: U.S. Geological Survey open-file report, 24 p.
- \_\_\_\_\_ 1977, Streamflow characteristics related to channel geometry in the Missouri River basin: U.S. Geological Survey Journal of Research, v. 5, no. 3, p. 285-300.
- Hedman, E. R., Kastner, W. M., and Hejl, H. R., 1974, Kansas streamflow characteristics, part 10, Selected streamflow characteristics as related to active-channel geometry of streams in Kansas: Kansas Water Resources Board Technical Report No. 10, 21 p.
- Hedman, E. R., and Osterkamp, W. R., 1982, Streamflow characteristics related to channel geometry of streams in western United States: U.S. Geological Survey Water-Supply Paper 2193, 17 p.
- Hejl, H. R., Jr., 1977, A method for adjusting values of Manning's roughness coefficient for flooded urban areas: U.S. Geological Survey Journal of Research, v. 5, no. 5, p. 541-545.
- \*Hinds, Henry, and Greene, F. C., 1917, Description of the Leavenworth and Smithville quadrangles, Missouri-Kansas: U.S. Geological Survey Geologic Atlas, Folio 206, 13 p. 10 pl., 10 figs.
- Hodson, W. G., 1959, Geology and ground-water resources of Mitchell County, Kansas: Kansas Geological Survey Bulletin 140, 132 p.
- \_\_\_\_\_ 1963, Geology and ground-water resources of Wallace County, Kansas: Kansas Geological Survey Bulletin 161, 108 p.
- \_\_\_\_\_ 1965, Geology and ground-water resources of Trego County, Kansas: Kansas Geological Survey Bulletin 174, 80 p.
- \_\_\_\_\_ 1969, Geology and ground-water resources of Decatur County, Kansas: Kansas Geological Survey Bulletin 196, 41 p.
- Hodson, W. G., and Wahl, K. D., 1960, Geology and ground-water resources of Gove County, Kansas: Kansas Geological Survey Bulletin 145, 126 p.
- Irza, T. J., 1966, Preliminary flood-frequency relations for small streams in Kansas: U.S. Geological Survey open-file report, 19 p.

- James, I. C., II, 1967, Flood runoff from partially urbanized areas, Wichita, Kansas--Report No. 1, Analysis of initial conditions: U.S. Geological Survey open-file report, 62 p.
- \_\_\_\_ 1968, Streamflow generalization in an area of the central United States: U.S. Geological Survey open-file report, 60 p.
- Jenkins, E. D., 1971, Tests of the Stroebel Spring, a supplementary study of the Fort Carson expansion project, Civil Action No. 8920, Tract No. 202, El Paso County, Colorado: U.S. Geological Survey open-file report, 17 p.
- Jenkins, E. D., and Hurr, R. T., 1969, Hydrologic investigation, Fort Carson, Colorado Expansion Project, Civil Action No. 8920-Tract 202, El Paso County, Colorado: U.S. Geological Survey open-file report, 34 p.
- Jenkins, E. D., and Pabst, M. E., 1975, Water development for irrigation in northwestern Kansas: U.S. Geological Survey Open-File Report 4-75, 39 p.
- \_\_\_\_ 1977, Water-resources reconnaissance of Ness County, west-central Kansas: Kansas Geological Survey Irrigation Series 3, 26 p.
- Johnson, C. R., 1956, The ground-water resources of the Prairie Dog Valley area in Kansas: Kansas Geological Survey Open-File Report 56-4, 171 p.
- \_\_\_\_ 1958, Geology and ground-water resources of Logan County, Kansas: Kansas Geological Survey Bulletin 129, 175 p.
- \*Johnson, W. D., 1901, The High Plains and their utilization: U.S. Geological Survey 21st Annual Report, Part IV-c, p. 743-768.
- \* \_\_\_\_ 1902, The High Plains and their utilization (conclusion): U.S. Geological Survey 22nd Annual Report, Part IV-c, p. 671-690.
- \*Johnson, W. D., Jr., Adkison, W. L., and Wagner, H. C., 1967, Geology of Shawnee County, Kansas: U.S. Geological Survey Bulletin 1215, 254 p.
- Jordan, P. R., 1977, Streamflow transmission losses in western Kansas: Proceedings, American Society Civil Engineers, Hydraulics Division Journal, v. 103, no. HY8, p. 905-919.
- \_\_\_\_ 1978a, Statistical summary of streamflow data for Kansas streams in the Arkansas River basin: Kansas Water Resources Board Technical Report 14A, 206 p.
- \_\_\_\_ 1978b, Loss of high flows by seepage from stream channels in Kansas: Kansas Water News, v. 21, nos. 1 and 2, p. 30-34.
- \_\_\_\_ 1979a, Relation of sediment yield to climatic and physical characteristics in the Missouri River basin: U.S. Geological Survey Water-Resources Investigations 79-49, 26 p.

- \_\_\_\_\_ 1979b, Statistical summary of streamflow data for Kansas streams in the Missouri River basin: Kansas Water Resources Board Technical Report No. 14B, 334 p.
- \_\_\_\_\_ 1982, Rainfall-runoff relations and expected streamflow in western Kansas: Kansas Water Office Bulletin 25, 42 p.
- \_\_\_\_\_ 1983, Magnitude and frequency of low flows of unregulated streams in Kansas, and estimation of flow-duration curves for ungaged sites: Kansas Water Office Technical Report No. 17, 55 p.
- Jordan, P. R., and Hedman, E. R., 1970, Evaluation of the surface-water data program in Kansas: Kansas Water Resources Board Bulletin No. 12, 49 p.
- Jordan, P. R., and Irza, T. J., 1975, Kansas streamflow characteristics, Magnitude and frequency of floods in Kansas, unregulated streams: Kansas Water Resources Board Technical Report No. 11, 34 p.
- \*Jordan, P. R., Jones, B. F., and Petri, L. R., 1964, Chemical quality of surface waters and sedimentation in the Saline River basin, Kansas: U.S. Geological Survey Water-Supply Paper 1651, 90 p.
- Jorgensen, D. G., Gogel, Tony, and Signor, D. C., 1982, Determination of flow in aquifers containing variable-density water, in Ground Water Monitoring Review: Water Well Journal Publishing Co., Worthington, Ohio, v. 2, no. 2, Spring 1982, p. 40-45.
- Jorgensen, D. G., Grubb, H. F., Baker, C. H., Jr., Hilmes, G. E., and Jenkins, E. D., 1982, A numerical model to evaluate proposed ground-water allocations in southwest Kansas: U.S. Geological Survey Water-Resources Investigations 82-4095, 46 p.
- Jorgensen, D. G., and Signor, D. C., 1981, Plan of study for the Central Midwest Regional Aquifer System Analysis in parts of Arkansas, Colorado, Kansas, Missouri, Nebraska, New Mexico, Oklahoma, South Dakota, and Texas: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-206, 28 p.
- Jorgensen, D. G., and Stullken, L. E., 1981, Hydrology and model of North Fork Solomon River valley, Kirwin Dam to Waconda Lake, north-central Kansas: Kansas Geological Survey Irrigation Series 6, 34 p.
- Jungmann, W. L., 1966, Geology and ground-water resources of Neosho County, Kansas: Kansas Geological Survey Bulletin 183, 46 p.
- Jungmann, W. L., and Williams, C. C., 1968, Geology and ground water in Labette County, Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-279, scale 1:63,390, 1 sheet.

Kansas Water Board, 1958-62, State water plan studies, Part A--Preliminary appraisal of Kansas water problems:

- Sec. 1, Marais des Cygnes Unit, June 1958, 189 p.
- Sec. 2, Cimarron Unit, Sept. 1958, 124 p.
- Sec. 3, Kansas Unit, June 1959, 193 p.
- Sec. 4, Lower Arkansas Unit, Jan. 1960, 177 p.
- Sec. 5, Walnut-Verdigris Unit, June 1960, 160 p.
- Sec. 6, Upper Republican Unit, June 1960, 111 p.
- Sec. 7, Neosho Unit, June 1961, 134 p.
- Sec. 8, Solomon-Saline Unit, June 1961, 154 p.
- Sec. 9, Lower Republican Unit, June 1961, 99 p.
- Sec. 10, Missouri Unit, June 1962, 109 p.
- Sec. 11, Upper Arkansas Unit, June 1962, 121 p.
- Sec. 12, Smoky Hill Unit, June 1962, 125 p.

Kastner, W. M., 1974, Application of statistical techniques to the estimation of ground-water withdrawals in northwestern Kansas: U. S. Geological Survey Water-Resources Investigations 41-74, 11 p.

Keene, K. M., and Bayne, C. K., 1977, Ground water from Lower Cretaceous rocks in Kansas: Kansas Geological Survey Chemical Quality Series 5, 18 p.

\*Keene, K. M., and Pabst, M. E., 1971, Hydrogeologic data from Gove, Logan, and Wallace Counties, Kansas: Kansas Geological Survey Ground Water Basic-Data Release No. 2, 76 p.

\*Keene, K. M., Pearl, R. H., and Pabst, M. E., 1969, Hydrogeologic data from Cheyenne, Decatur, Rawlins, Sheridan, Sherman, and Thomas Counties, Kansas: Kansas Geological Survey, Ground Water Basic-Data Release No. 1, 113 p.

Kenny, J. F., Bevan, H. E., and Diaz, A. M., 1982, Physical and hydrologic environments of the Mulberry coal reserves in eastern Kansas: U.S. Geological Survey Water-Resources Investigations 82-4074, 50 p.

Kenny, J. F., and Combs, L. J., 1983, Water-resources investigations of the U.S. Geological Survey in Kansas--fiscal years 1981 and 1982: U.S. Geological Survey Open-File Report 83-932, 87 p.

Kenny, J. F., and McCauley, J. R., 1982, Remote-sensing investigations in the coal fields of southeastern Kansas, chap. 29 of Remote sensing for resource management (outgrowth of a national conference by the same name, held October 28-30, 1980, at Kansas City, Mo., 665 p.): Soil Conservation Society of America, Ankeny, Iowa, p. 338-346.

\_\_\_\_\_, 1983, Application of remote-sensing techniques to hydrologic studies in selected coal-mined areas of southeastern Kansas: U.S. Geological Survey Water-Resources Investigations Report 83-4007, 33 p.

- Kume, Jack, Dunlap, L. E., Gutentag, E. D., and Thomas, J. G., 1979, Hydrologic and related data for water-supply planning in an intensive-study area, northeastern Wichita County, Kansas: U.S. Geological Survey Water-Resources Investigations 79-105, 51 p.
- Kume, Jack, and Spinazola, J. M., 1982, Geohydrologic data from sandstone aquifers in southwestern Kansas: U.S. Geological Survey Open-File Report 82-868, 112 p.
- \_\_\_\_\_ 1983, Depth and thickness of selected units in Upper Permian, Upper Jurassic, and Lower Cretaceous rocks in southwestern Kansas: U.S. Geological Survey Water-Resources Investigations Report 83-4095, scale 1:500,000, 7 sheets.
- Landis, E. R., 1960, Uranium content of ground and surface waters in a part of the central Great Plains: U.S. Geological Survey Bulletin 1087-G, p. 223-258.
- Lane, C. W., 1960, Geology and ground-water resources of Kingman County, Kansas: Kansas Geological Survey Bulletin 144, 174 p.
- Lane, C. W., and Miller, D. E., 1965a, Geohydrology of Sedgwick County, Kansas: Kansas Geological Survey Bulletin 176, 100 p.
- \_\_\_\_\_ 1965b, Logs of wells and test holes in Sedgwick County, Kansas: Kansas Geological Survey Special Distribution Publication 22, 175 p.
- Lane, C. W., Reavis, E. L., and Stramel, G. J., 1962, Emergency water supplies in the Wichita area, Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-58, scale 1:250,000, 1 sheet, 36 p.
- La Rocque, G. A., Jr., 1966, General availability of ground water and depth to water level in the Missouri River basin: U.S. Geological Survey Hydrologic Investigations Atlas HA-217, scale 1:2,500,000, 1 sheet.
- Latta, B. F., 1940, Memorandum in regard to the possibility of leakage of the reservoir basin of the proposed Sedgwick County Lake, in south-central Kansas: Kansas Geological Survey Open-File Report 40-10, 11 p.
- \* \_\_\_\_\_ 1941, Geology and ground-water resources of Stanton County, Kansas: Kansas Geological Survey Bulletin 37, 119 p.
- \* \_\_\_\_\_ 1944, Geology and ground-water resources of Finney and Gray Counties, Kansas: Kansas Geological Survey Bulletin 55, 272 p.
- \* \_\_\_\_\_ 1948a, Geology and ground-water resources of Kiowa County, Kansas: Kansas Geological Survey Bulletin 65, 151 p.
- \* \_\_\_\_\_ 1948b, Ground-water supplies at Hays, Victoria, Walker, Gorham, and Russell, Kansas, with special reference to future needs: Kansas Geological Survey Bulletin 76, pt. 6, p. 121-196.

- \* \_\_\_\_\_ 1949, Ground-water conditions in the Smoky Hill Valley in Saline, Dickinson, and Geary Counties, Kansas: Kansas Geological Survey Bulletin 84, 152 p.
- \* \_\_\_\_\_ 1950, Geology and ground-water resources of Barton and Stafford Counties, Kansas: Kansas Geological Survey Bulletin 88, 228 p.
- Layton, D. W., and Berry, D. W., 1973, Geology and ground-water resources of Pratt County, south-central Kansas: Kansas Geological Survey Bulletin 205, 33 p.
- Leeson, E. R., 1957, History of natural flow, Kansas River: U.S. Geological Survey open-file report, 5 p.
- Leonard, A. R., 1952, Geology and ground-water resources of the North Fork Solomon River in Mitchell, Osborne, Smith, and Phillips Counties, Kansas: Kansas Geological Survey Bulletin 98, 150 p.
- Leonard, A. R., and Berry, D. W., 1961, Geology and ground-water resources of southern Ellis County and parts of Trego and Rush Counties, Kansas: Kansas Geological Survey Bulletin 149, 156 p.
- \*Leonard, R. B., 1964a, A method for evaluating oil-field-brine pollution of the Walnut River in Kansas in Geological Survey Research, 1964, Chapter B: U.S. Geological Survey Professional Paper 501-B, p. B173-B176.
- \_\_\_\_\_ 1964b, Cooperative water-quality investigations of the Walnut River basin: Kansas Water News, v. 7, no. 5, p. 5-6.
- \_\_\_\_\_ 1964c, Results of four chemical-quality surveys of the Walnut River basin, Kansas (December 1961 to October 1963): Kansas State Department of Health Bulletin No. 1-3, 38 p.
- \_\_\_\_\_ 1969a, Effect of irrigation on the chemical quality of low streamflow adjacent to Cedar Bluff Irrigation District, Kansas, a progress report: Kansas State Department of Health Bulletin, 1-10, 17 p.
- \_\_\_\_\_ 1969b, Time of travel study on the Big Blue River: Kansas Water News, v. 12, no. 3, p. 7 and 8.
- \_\_\_\_\_ 1970, Variations in the chemical quality of ground water beneath an irrigated field, Cedar Bluff Irrigation District, Kansas: Kansas State Department of Health Bulletin 1-11, 20 p.
- \_\_\_\_\_ 1972, Chemical quality of water in the Walnut River basin, south-central Kansas: U.S. Geological Survey Water-Supply Paper 1982, 113 p.
- \_\_\_\_\_ 1974, Changes in chemical quality of water, Cedar Bluff Irrigation District area, west-central Kansas: Kansas Geological Survey Chemical Quality Series No. 1, 72 p.
- Leonard, R. B., and Kleinschmidt, M. K., 1976, Saline water in the Little Arkansas River basin area, south-central Kansas: Kansas Geological Survey Chemical Quality Series 3, 24 p.

- Leonard, R. B., and Morgan, C. O., 1970, Application of computer techniques to seepage-salinity surveys in Kansas: Kansas Geological Survey Special Distribution Publication 47, 44 p.
- Leonard, R. B., and Shah, K. L., 1964, The relation of the chemical quality of the Whitewater River at Towanda to that of the Walnut River at Winfield, Kansas, during the 1963 water year: Kansas State Department of Health Bulletin, No. 1-2, 18 p.
- Leonard, R. B., Signor, D. C., Jorgensen, D. G., and Helgesen, J. O., 1983, Geohydrology and hydrochemistry of the Dakota aquifer, central United States: American Water Resources Association, Water Resources Bulletin, v. 19, no. 6, December 1983, p. 903-911.
- Leonard, R. B., and Stoltenberg, G. A., 1972, Compilation of data for water-quality investigation, Cedar Bluff Irrigation District, Kansas: Kansas State Department of Health Bulletin 1-12, 158 p.
- Lindgren, R. J., 1982, Determination of irrigation pumpage in parts of Kearny and Finney Counties, southwestern Kansas: U.S. Geological Survey Water-Resources Investigations 82-4011, 26 p.
- Lobmeyer, D. H., and Sauer, C. G., 1974, Water resources of Hamilton County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-516, scales 1:250,000 and 1:500,000, 2 sheets.
- Lobmeyer, D. H., and Weakly, E. C., 1978, Water in Dakota Formation, Hodgeman and northern Ford Counties, southwestern Kansas: U.S. Geological Survey Open-File Report 78-886, 81 p.
- \_\_\_\_\_, 1979, Water in the Dakota Formation, Hodgeman and northern Ford Counties, southwestern Kansas: Kansas Geological Survey Irrigation Series 5, 41 p.
- \*Lohman, S. W., 1941, Ground-water conditions in the vicinity of Lawrence, Kansas: Kansas Geological Survey Bulletin 38, pt. 2, 64 p.
- \*\_\_\_\_\_ 1942, Ground-water supplies available for national defense industries in south-central Kansas: Kansas Geological Survey Bulletin 41, pt. 1, 19 p.
- Lohman, S. W., and Burtis, V. M., 1953, Areas of principal ground-water investigations in the Arkansas, White, and Red River basins: U.S. Geological Survey Hydrologic Investigations Atlas HA-2, scale 1:2,500,000, 1 sheet.
- Lohman, S. W., Burtis, V. M., and others, 1953, General availability of ground water and depths to water levels in the Arkansas, White, and Red River basins: U.S. Geological Survey Hydrologic Investigations Atlas HA-3, scale 1:2,500,000, 1 sheet.
- Lohman, S. W., and Frye, J. C., 1940, Geology and ground-water resources of the "Equus beds" area in south-central Kansas: Economic Geology, v. 35, no. 7, p. 839-866.

- \*Lohman, S. W., Frye, J. C., Waite, H. A., Fishel, V. C., McLaughlin, T. G., Latta, B. F., and Abernathy, G. E., 1942, Ground-water supplies available in Kansas for national defense industries: Kansas Geological Survey Bulletin 41, pt. 2, p. 21-28.
- Lohman, S. W., and Mitchell, Alexander, 1940, Memorandum in regard to prospecting for a softer water supply for the Kansas State Penitentiary at Lansing, Kansas: U.S. Geological Survey open-file report, 17 p.
- Longwill, S. M., McNellis, J. M., and Posson, D. R., 1980, The use of mini-computers in a distributed information processing system--a feasibility study: U.S. Geological Survey Open-File Report 80-326, 68 p.
- \*Lowell, B. H., Morgan, C. O., and McNellis, J. M., 1970, Brief descriptions of and examples of output from computer programs developed for use with water data in Kansas: Kansas Geological Survey Special Distribution Publication 48, 54 p.
- Mack, L. E., 1962, Geology and ground-water resources of Ottawa County, Kansas: Kansas Geological Survey Bulletin 154, 145 p.
- Mayes, J. L., and Culbertson, Don, 1964, Chemical quality of surface waters in Kansas, 1962 water year: Kansas State Department of Health Bulletin No. 1-4, 61 p.
- Mayes, J. L., and Diaz, A. M., 1965, Chemical quality of surface waters in Kansas, 1963 water year: Kansas State Department of Health Bulletin 1-8, 67 p.
- McClain, T. J., and Jenkins, E. D., 1971, Digital simulation of the Ogallala aquifer in Sherman County, northwestern Kansas, in Ogallala aquifer symposium: Texas Tech University Special Report 39, p. 72-88.
- McClain, T. J., Jenkins, E. D., Keene, K. M., and Pabst, M. E., 1975, Water resources of Gove, Logan, and Wallace Counties, west-central Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-521, scales 1:250,000 and 1:500,000, 2 sheets.
- McElwee, C. D., 1977, The Theis equation--Evaluation, sensitivity to storage and transmissivity, and automated fit of pump test data: Kansas Geological Survey Open-File Report 77-5, 38 p.
- McElwee, C. D., and Yukler, M. R., 1978, Sensitivity of groundwater models with respect to variations in transmissivity and storage: American Geophysical Union, Water Resources Research, v. 14, no. 3, p. 451-459.
- McGovern, H. E., 1971, Geology and ground water in the Ogallala Formation and undifferentiated Pleistocene deposits, southwestern Kansas, in Ogallala aquifer symposium: Texas Tech University Special Report 39, p. 15-29.
- McGovern, H. E., and Combs, L. J., 1979, Water-resources investigations in Kansas--fiscal year 1978: U.S. Geological Survey Open-File Report 79-561, 85 p.

- \_\_\_\_ 1981, Water-resources investigations of the U.S. Geological Survey in Kansas--Fiscal years 1979 and 1980: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-348, 107 p.
- McGovern, H. E., and Long, W. A., 1974, Ground water in Gray County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-517, scale 1:250,000, 2 sheets.
- \*McLaughlin, T. G., 1942, Geology and ground-water resources of Morton County, Kansas: Kansas Geological Survey Bulletin 40, 126 p.
- \* \_\_\_\_ 1943, Geology and ground-water resources of Hamilton and Kearny Counties, Kansas: Kansas Geological Survey Bulletin 49, 220 p.
- \* \_\_\_\_ 1946, Geology and ground-water resources of Grant, Haskell, and Stevens Counties, Kansas: Kansas Geological Survey Bulletin 61, 221 p.
- \* \_\_\_\_ 1949, Geology and ground-water resources of Pawnee and Edwards Counties, Kansas: Kansas Geological Survey Bulletin 80, 189 p.
- McNellis, J. M., 1973, Geology and ground-water resources of Rush County, central Kansas: Kansas Geological Survey Bulletin 207, 45 p.
- McNellis, J. M., and Morgan, C. O., 1969, Modified Piper diagrams by the digital computer: Kansas Geological Survey Distribution Publication 45, 36 p.
- McNellis, J. M., Morgan, C. O., and Lowell, B. H., 1968, Digital computer applications that facilitate collection and interpretation of ground-water data in International Association Scientific Hydrology, The use of analog and digital computers in hydrology--a symposium: International Association Scientific Hydrology Publication No. 81 A1HS, v. 2, p. 561-568.
- \_\_\_\_ 1969, Computer-produced tables, maps, and diagrams as tools in the interpretation of brine data from southeastern Kansas (U.S.A): Chemical Geology, Amsterdam, v. 4, p. 303-324.
- \*Meinzer, O. E., 1915, Preliminary report on ground water for irrigation in the vicinity of Wichita, Kansas: U.S. Geological Survey Water-Supply Paper 345-A, 9 p.
- \*Meyer, W. R., 1963, Use of a neutron moisture probe to determine the storage coefficient of an unconfined aquifer: U.S. Geological Survey Professional Paper 450-E, p. E174-E176.
- Meyer, W. R., Gutentag, E. D., and Lobmeyer, D. H., 1969, Finney County basic data: U.S. Geological Survey open-file report, 146 p.

- \_\_\_\_ 1970, Geohydrology of Finney County, southwestern Kansas: U.S. Geological Survey Water-Supply Paper 1891, 117 p.
- Meyers, J. S., 1962, Evaporation from the 17 Western States, with a section on evaporation rates by T. J. Nordenson: U.S. Geological Survey Professional Paper 272-D, p. 71-100.
- Miller, D. E., 1966, Geology and ground-water resources of Miami County, Kansas: Kansas Geological Survey Bulletin 181, 66 p.
- \_\_\_\_ 1969, Geology and ground-water resources of Allen County, Kansas: Kansas Geological Survey Bulletin 195, 50 p.
- \*Moore, R. C., 1940, Ground-water resources of Kansas, with chapters by S. W. Lohman, J. C. Frye, H. A. Waite, T. G. McLaughlin, and B. F. Latta: Kansas Geological Survey Bulletin 27, 112 p.
- Morgan, C. O., Dingman, R. J., and McNellis, J. M., 1966, Digital computer methods for water-quality data: Ground Water, Technical Division Journal, National Water Well Association, v. 4, no. 3, July, p. 35-42.
- Morgan, C. O., and McNellis, J. M., 1969a, FORTRAN IV programs, KANS, for the conversion of General Land Office locations to latitude and longitude coordinates: Kansas Geological Survey Special Distribution Publication 42, 24 p.
- \_\_\_\_ 1969b, Stiff diagrams of water-quality data programmed for the digital computer: Kansas Geological Survey Special Distribution Publication 43, 26 p.
- \_\_\_\_ 1971, Reduction of lithologic-log data to numbers for use in the digital computer: Mathematical Geology, v. 3, no. 1, p. 79-86.
- Morgan, C. O., McNellis, J. M., and Lowell, B. H., 1969, Computer applications in hydrology in Kansas in Zeller, D. E., ed., Short papers on research in 1968: Kansas Geological Survey Bulletin 194, pt. 1, p. 3-7.
- Morton, R. B., and Fader, S. W., 1975, Ground water in the Grand (Neosho) River basin, Kansas and Oklahoma: U.S. Geological Survey Open-File Report 75-366, 35 p.
- Mundorff, J. C., 1958, Sediment studies in Kansas, 1957-1958: Kansas Water News, v. 2, no. 1, p. 6-7.
- \_\_\_\_ 1961, A program of fluvial sediment investigations in Kansas: Kansas Water Resources Board Bulletin No. 6, 48 p.
- Mundorff, J. C., and Scott, C. H., 1964, Fluvial sediment in the lower Kansas River basin--a progress report 1957-60: Kansas Water Resources Board Bulletin No. 7, 67 p.
- \*Mundorff, J. C., and Waddell, K. M., 1966, Fluvial sediment and chemical quality of water in the Little Blue River basin, Nebraska and Kansas: U.S. Geological Survey Water-Supply Paper 1819-H, p. H1-H45.

- \*Murphy, E. C., 1904, Destructive floods in the United States in 1903, contains Kansas floods and hydrographic data: U.S. Geological Survey Water-Supply Paper 96, p. 21-78.
- \* \_\_\_\_\_ 1905, Destructive floods in the United States in 1904, contains Kansas floods: U.S. Geological Survey Water-Supply Paper 147, p. 59-113.
- \*Newell, F. H., 1895, Report of progress of the Division of Hydrography for 1893 and 1894: U.S. Geological Survey Bulletin 131, 126 p.
- \* \_\_\_\_\_ 1898, Report of progress of stream measurements for the calendar year 1897: U.S. Geological Survey 19th Annual Report, Part IV, p. 1-632.
- \* \_\_\_\_\_ 1899, Report of progress on stream measurements for the calendar year 1898: U.S. Geological Survey 20th Annual Report, Part IV, p. 1-562.
- \* \_\_\_\_\_ 1900, Report of progress of stream measurements for the calendar year 1899: U.S. Geological Survey 21st Annual Report, p. 9-488.
- \* \_\_\_\_\_ 1901, Report of progress of stream measurements for the calendar year 1900: U.S. Geological Survey 22nd Annual Report, p. 9-506.
- Nuzman, C. E., and Meyer, W. R., 1965, Water-level change in Grant and Stanton Counties, Kansas, 1939-1965: Kansas Geological Survey Special Distribution Publication 18, 11 p.
- O'Connor, H. G., 1949, Notes on the ground-water resources of Chase County, Kansas: Transactions of the Kansas Academy of Science, v. 52, no. 3, p. 399-405.
- \* \_\_\_\_\_ 1951, Ground-water resources of Chase County [Kansas]: Kansas Geological Survey v. 11, pt. 3, p. 28-49.
- \_\_\_\_\_ 1953, Ground-water resources of Lyon County [Kansas]: Kansas Geological Survey, v. 12, pt. 3, p. 35-59.
- \_\_\_\_\_ 1955, Ground-water resources of Osage County [Kansas]: Kansas Geological Survey, v. 13, pt. 3, p. 28-49.
- \* \_\_\_\_\_ 1960, Geology and ground-water resources of Douglas County, Kansas: Kansas Geological Survey Bulletin 148, 200 p.
- \_\_\_\_\_ 1971, Geology and ground-water resources of Johnson County, northeastern Kansas: Kansas Geological Survey Bulletin 203, 68 p.
- \_\_\_\_\_ 1973, Geohydrology for urban planning in Johnson County, northeastern Kansas: Kansas Geological Survey Open-File Report 73-9, 41 p.
- \_\_\_\_\_ 1974, Geology and ground-water resources of Montgomery County, southeastern Kansas: Kansas Geological Survey Ground-Water Series No. 1, 12 p.

- Osterkamp, W. R., 1977, Fluvial sediment in the Arkansas River basin, Kansas: Kansas Water Resources Board Bulletin 19, 91 p.
- \_\_\_\_\_ 1978a, Bed- and bank-sampling procedure at channel geometry sites: Proceedings of National Conference on Sampling, Validation, and Quality Control of Environmental Measurements, Atlanta, Ga., May 31-June 2, 1978.
- \_\_\_\_\_ 1978b, Effect of channel sediment on width-discharge relations, with emphasis on streams in Kansas: Kansas Water Resources Board Bulletin 21, 25 p.
- \_\_\_\_\_ 1978c, Gradient, discharge, and particle-size relations of alluvial channels in Kansas, with observations on braiding: American Journal of Science, v. 278, November 1978, p. 1253-1268.
- \_\_\_\_\_ 1979a, Bed- and bank-material sampling procedure at channel-geometry sites: National Conference on Quality Assurance of Environmental Measurement, Information Transfer Inc., p. 86-89.
- \_\_\_\_\_ 1979b, Invariant power functions as applied to fluvial morphology, in Rhodes, D. D., and Williams, G. R., eds., Adjustments of the fluvial system: Kendall/Hunt Publishing Co., p. 33-54.
- \_\_\_\_\_ 1979c, Variation of alluvial-channel width with discharge and character of sediment: U.S. Geological Survey Water-Resources Investigations 79-15, 11 p.
- \_\_\_\_\_ 1980, Sediment-morphology relations of alluvial channels: American Society Civil Engineers Proceedings, Watershed Management Symposium, Boise, Idaho, 12 p.
- Osterkamp, W. R., Curtis, R. E., Jr., and Crowther, H. G., 1981, Sediment and channel-geometry investigations for the Kansas River Bank-Stabilization Study, Kansas, Nebraska, and Colorado: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-128, 72 p.
- Osterkamp, W. R., and Hedman, E. R., 1977, Variation of width and discharge for natural high-gradient stream channels: American Geophysical Union, Water Resources Research, v. 13, no. 2, p. 256-258.
- \_\_\_\_\_ 1979, Discharge estimates in surface-mine areas using channel-geometry techniques: Proceedings, Symposium on Surface-Mine Hydrology, Sedimentology and Reclamation, University of Kentucky Bulletin 119, p. 43-49.
- \_\_\_\_\_ 1981, Channel geometry of regulated streams in Kansas as related to mean discharge, 1970-80: Kansas Water Office Technical Report No. 15, 32 p.
- \_\_\_\_\_ 1982, Perennial-streamflow characteristics related to channel geometry and sediment in Missouri River basin: U.S. Geological Survey Professional Paper 1242, 37 p.

- Osterkamp, W. R., Hedman, E. R., and Wiseman, A. G., 1982, Geometry, basin characteristics, discharge, and particle-size data from gaged stream-channel sites, western United States: U.S. Geological Survey Hydrologic Data, Open-File Report 82-93, 56 p.
- Osterkamp, W. R., McNellis, J. M., Jordan, P. R., 1978, Guidelines for the use of structural versus regression analysis in geomorphic studies: U.S. Geological Survey Water-Resources Investigations 78-135, 22 p.
- Osterkamp, W. R., and Wiseman, A. G., 1980, Particle-size analyses of bed and bank material from channels of the Missouri River basin: U.S. Geological Survey Hydrologic Data, Open-File Report 80-429, 31 p.
- Pabst, M. E., 1977a, January 1977 water levels, and data related to water-level changes since 1950, western Kansas: U.S. Geological Survey Open-File Report 77-264, 209 p.
- \_\_\_\_\_ 1977b, Map showing percentage decline in saturated thickness of unconsolidated aquifer, 1950-77, west-central Kansas: U.S. Geological Survey Open-File Report 77-675, 1 pl.
- \_\_\_\_\_ 1978a, January 1978 water levels, and data related to water-level changes since 1940 or 1950, western Kansas: U.S. Geological Survey Open-File Report 78-409, 179 p.
- \_\_\_\_\_ 1978b, Map showing percentage decrease in saturated thickness of unconsolidated aquifer, 1950-78, west-central Kansas: U.S. Geological Survey Open-File Report 78-874, 1 pl.
- \_\_\_\_\_ 1978c, Map showing saturated thickness of unconsolidated aquifer, southwestern Kansas, January 1978: U.S. Geological Survey Open-File Report 78-969, 4 pl.
- \_\_\_\_\_ 1979a, January 1979 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Open-File Report 79-925, 213 p.
- \_\_\_\_\_ 1979b, Maps showing saturated thickness, January 1979, and percentage decrease in saturated thickness, 1950-79, of unconsolidated aquifer, west-central Kansas: U.S. Geological Survey Open-File Report 79-1340, scale 1:125,000, 2 sheets.
- \_\_\_\_\_ 1980, January 1980 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Hydrologic Data, Open-File Report 80-958, 166 pages.
- \_\_\_\_\_ 1981, January 1981 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Open-File Report 81-1001, 168 p.
- \_\_\_\_\_ 1982a, January 1982 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Open-File Report 82-649, 167 p.
- \_\_\_\_\_ 1982b, Map showing percentage change in saturated thickness of the High Plains aquifer, west-central Kansas, 1950 to average 1980-82: U.S. Geological Survey Open-File Report 82-1010, scale 1:125,000, 1 sheet.

- \_\_\_\_\_ 1983a, January 1983 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Open-File Report 83-762, 164 p.
- \_\_\_\_\_ 1983b, Kansas ground-water observation-well network, 1983: U.S. Geological Survey Open-File Report 83-528, 57 p.
- Pabst, M. E., and Gutentag, E. D., 1977, Water-level changes in west-central Kansas, 1950-77: Kansas Geological Survey Journal, October 1977, 18 p.
- \_\_\_\_\_ 1979, Water-level changes in southwestern Kansas, 1940-78: Kansas Geological Survey Journal, May 1979, 29 p.
- \*Pabst, M. E., and Jenkins, E. D., 1973, Water-level changes in northwestern Kansas, 1950-73: Kansas Geological Survey Journal, October 1973, 14 p.
- \* \_\_\_\_\_ 1974, Water-level changes in west-central Kansas, 1950-74: Kansas Geological Survey Journal, October 1974, 15 p.
- \_\_\_\_\_ 1976a, Water-level changes in northwestern Kansas, 1950-76: Kansas Geological Survey Journal, December 1976, 20 p.
- \* \_\_\_\_\_ 1976b, Water-level changes in southwestern Kansas, 1940-75: Kansas Geological Survey Journal, May 1976, 26 p.
- Pabst, M. E., and Stullken, L. E., 1981, Altitude and configuration of water table in High Plains aquifer in Kansas, 1980: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-1004, scale 1:500,000, 1 sheet.
- \_\_\_\_\_ 1982a, Altitude and configuration of water table in High Plains aquifer in Kansas, 1960: U.S. Geological Survey Water-Resources Investigations, Open-File Report 82-429, scale 1:500,000, 1 sheet.
- \_\_\_\_\_ 1982b, Altitude and configuration of water table in High Plains aquifer in Kansas, 1965: U.S. Geological Survey Water-Resources Investigations, Open-File Report 82-449, scale 1:500,000, 1 sheet.
- \_\_\_\_\_ 1982c, Altitude and configuration of water table in High Plains aquifer in Kansas, 1970: U.S. Geological Survey Water-Resources Investigations, Open-File Report 82-448, scale 1:500,000, 1 sheet.
- \*Parker, H. N., 1911, Quality of the water supplies of Kansas, with a preliminary report on stream pollution by mine waters in southeastern Kansas by E. H. S. Bailey: U.S. Geological Survey Water-Supply Paper 273, 375 p.
- \*Peale, A. C., 1886, Lists and analyses of the mineral springs of the United States (a preliminary study): U.S. Geological Survey Bulletin 32, 235 p.
- \* \_\_\_\_\_ 1894, Natural mineral waters of the United States: U.S. Geological Survey 14th Annual Report, Part II-b, p. 49-88.

- Pearl, R. H., 1968, Quaternary geology of the Morrison quadrangle, Colorado: Mountain Geologist, Rocky Mountain Association of Geologists, v. 5, no. 4, p. 197-206.
- Pearl, R. H., Roberts, R. S., Keene, K. M., and McClain, T. J., 1972, Water resources of northwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-429, scale 1:250,000, 2 sheets.
- Peek, C. O., and Jordan, P. R., 1978, Determination of peak discharge from rainfall data for urbanized basins, Wichita, Kansas: U.S. Geological Survey Open-File Report 78-974, 49 p.
- Perry, C. A., 1980, Preliminary analysis of regional-precipitation periodicity: U.S. Geological Survey Water-Resources Investigations 80-74, 26 p.
- \*Petri, L. R., Lane, C. W., and Furness, L. W., 1964, Water resources of the Wichita area, Kansas: U.S. Geological Survey Water-Supply Paper 1499-I, 69 p.
- Pope, L. M., and Diaz, A. M., 1982, Quality-of-water data and statistical summary for selected coal-mine strip pits in Crawford and Cherokee Counties, southeastern Kansas: U.S. Geological Survey Open-File Report 82-1021, 28 p.
- Pope, L. M., Diaz, A. M., and Butler, M. K., 1983, Urban water-quality data and statistical summaries for selected sites in the Shunganunga Creek basin, Topeka, Kansas: Kansas Department of Health and Environment Bulletin B2-49, 203 p.
- Prescott, G. C., Jr., 1948, Preliminary report on the ground-water resources of Labette County, Kansas: Kansas Geological Survey Open-File Report 48-7, 15 p.
- \* \_\_\_\_\_ 1951, Geology and ground-water resources of Lane County, Kansas: Kansas Geological Survey Bulletin 93, 126 p.
- \_\_\_\_\_ 1953a, Geology and ground-water resources of Cheyenne County, Kansas: Kansas Geological Survey Bulletin 100, 106 p.
- \_\_\_\_\_ 1953b, Geology and ground-water resources of Sherman County, Kansas: Kansas Geological Survey Bulletin 105, 130 p.
- \_\_\_\_\_ 1955, Geology and ground-water resources of Graham County, Kansas: Kansas Geological Survey Bulletin 110, 98 p.
- Prescott, G. C., Jr., Branch, J. R., and Wilson, W. W., 1954, Geology and ground-water resources of Wichita and Greeley Counties, Kansas: Kansas Geological Survey Bulletin 108, 134 p.
- Prill, R. C., 1968, Movement of moisture in the unsaturated zone in a dune area, southwestern Kansas in Geological Survey Research, 1968, Chapter D: U.S. Geological Survey Professional Paper 600-D, p. D1-D9.

- \_\_\_\_\_ 1977, Movement of moisture in the unsaturated zone in a loess-mantled area, southwestern Kansas: U.S. Geological Survey Professional Paper 1021, 21 p.
- \*Prill, R. C., and Meyer, W. R., 1968, Neutron moisture measurements by continuous- and point-logging procedures in Geological Survey Research, 1968, Chapter B: U.S. Geological Survey Professional Paper 600-B, p. B226-B230.
- \_\_\_\_\_ 1969, Neutron moisture measurements by continuous- and point-logging procedures: U.S. Geological Survey Professional Paper 650-C, p. C226.
- \*Prosser, C. S., and Beede, J. W., 1904, Description of Cottonwood Falls quadrangle, Kansas: U.S. Geological Survey Geologic Atlas, Folio 109, 6 p., 2 pl.
- Reed, T. B., 1981, Map of water table in Solomon River valley, Waconda Lake to Solomon, north-central Kansas, May 1980: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-334, scale 1:125,000, 1 sheet.
- Richards, D. B., and Dunaway, T. W., 1972, Geohydrologic data for numerical modeling of ground-water withdrawals in the Little Arkansas River basin area, south-central Kansas: U.S. Geological Survey open-file report, 426 p.
- Roberts, R. S., and Hodson, W. G., 1966, Ground water in Kansas--Bibliography and subject index: Kansas Geological Survey Bulletin 182, 41 p.
- \*Ropes, L. H., Morgan, C. O., and McNellis, J. M., 1969, FORTRAN IV program for synthesis and plotting of water-quality data: Kansas Geological Survey Special Distribution Publication 39, 59 p.
- Rosenshein, J. S., 1979, Groundwater in the United States 1975-78: American Geophysical Union, Reviews of Geophysics and Space Physics, v. 17, no. 6, September 1979, p. 1240-1253.
- Rosenshein, J. S., and McNellis, J. M., 1979, WRD prototype minicomputer system in the Kansas District: U.S. Geological Survey, Water Resources Division Bulletin, October-December 1978, January-June 1979, p. 42-45.
- \*Schrader, F. C., 1908, Description of the Independence quadrangle, Kansas: U.S. Geological Survey Geologic Atlas, Folio 159, 7 p., 3 pl.
- \*Schrader, F. C., and Haworth, Erasmus, 1906, Economic geology of the Independence quadrangle, Kansas: U.S. Geological Survey Bulletin 296, 74 p.
- Schumm, S. A., and Lichty, R. W., 1961, Recent flood-plain formation along the Cimarron River in Kansas: U.S. Geological Survey Professional Paper 424-B, p. B112.
- \*\_\_\_\_\_ 1963, Channel widening and flood-plain construction along the Cimarron River in southwestern Kansas: U.S. Geological Survey Professional Paper 352-D, p. 71-88.

- Seevers, W. J., 1969, Geology and ground-water resources of Linn County, Kansas: Kansas Geological Survey Bulletin 193, 62 p.
- Shelton, L. R., 1978, Artificial substrate retriever: U.S. Geological Survey, Water Resources Division Bulletin, July-September 1978, p. 19-22.
- Skougstad, M. W., and others, 1979, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 626 p.
- Slagle, S. E., and Weakly, E. C., 1976, Ground-water resources of Greeley and Wichita Counties, western Kansas: Kansas Geological Survey Irrigation Series No. 2, 21 p.
- \*Slichter, C. S., 1902, The motions of underground waters: U.S. Geological Survey Water-Supply Paper 67, 106 p.
- \*\_\_\_\_ 1906, The underflow in the Arkansas Valley in western Kansas: U.S. Geological Survey Water-Supply Paper 153, 90 p.
- \*Smith, W. S. T., 1905, Water resources of the Joplin district, Missouri-Kansas: U.S. Geological Survey Water-Supply Paper 145, p. 74-83.
- \*Smith, W. S. T., and Siebenthal, C. E., 1907, Description of the Joplin district, Missouri-Kansas: U.S. Geological Survey Geologic Atlas, Folio 148, 20 p., 27 figs.
- Snipes, R. J., and others, 1974, Floods of June 1965 in Arkansas River basin, Colorado, Kansas, and New Mexico: U.S. Geological Survey Water-Supply Paper 1850-D, D1-D97.
- Spinazola, J. M., 1981, Map of water table in Graham County, northwestern Kansas, March 1979: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-333, scale 1:125,000, 1 sheet.
- \_\_\_\_ 1982a, Hydrologic maps of the High Plains aquifer, January 1981, southwestern Kansas: U.S. Geological Survey Water-Resources Investigations 82-4079, scale 1:125,000, 8 sheets.
- \_\_\_\_ 1982b, Hydrologic maps of the Ogallala aquifer, west-central Kansas, 1979-81: U.S. Geological Survey Open-File Report 82-258, scale 1:125,000, 4 sheets.
- Spinazola, J. M., and Dealy, M. T., 1983, Hydrology of the Ogallala aquifer in Ford County, southwestern Kansas: U.S. Geological Survey Water-Resources Investigations Report 83-4226, 58 p.
- Spruill, T. B., 1982, Nitrate-nitrogen concentrations in ground water from three selected areas in Kansas: U.S. Geological Survey Water-Resources Investigations 82-11, 32 p.
- \_\_\_\_ 1983a, Relationship of nitrate concentrations to distance of well screen openings below casing water levels: American Water Resources Association, Water Resources Bulletin, v. 19, no. 6, December 1983, p. 977-981.

- \_\_\_\_ 1983b, Statistical summaries of selected chemical constituents in Kansas ground-water supplies, 1976-81: U.S. Geological Survey Open-File Report 83-263, 29 p.
- Spruill, T. B., and Kenny, J. F., 1981, Location of sampling sites and available information on wells sampled in the Kansas Ground-Water-Quality Monitoring Network, 1976-80: U.S. Geological Survey Hydrologic Data, Open-File Report 81-925, 49 p.
- Stramel, G. J., 1956, Progress report on the ground-water hydrology of the Equus-beds area, Kansas: Kansas Geological Survey Bulletin 119, pt. 1, 59 p.
- \_\_\_\_ 1957, The hydraulic properties of the Ordovician rocks at Pittsburg, Kansas: Kansas Geological Survey Bulletin 127, pt. 5, p. 153-178.
- \_\_\_\_ 1966, Progress report on the ground-water hydrology of the Equus-beds area, Kansas--1966: Kansas Geological Survey Bulletin 187, pt. 2, 27 p.
- Stramel, G. J., Lane, C. W., and Hodson, W. G., 1958, Geology and ground-water hydrology of the Ingalls area, Kansas: Kansas Geological Survey Bulletin 132, 154 p.
- Stullken, L. E., 1980, Hydrogeologic data from north-central Kansas: Kansas Geological Survey Basic Data Series, Ground-Water Release 7, 46 p.
- Stullken, L. E., and Fader, S. W., 1976, Hydrogeologic data from the Great Bend Prairie, south-central Kansas: Kansas Geological Survey Basic Data Series, Ground-Water Release No. 5, 50 p.
- Stullken, L. E., and Pabst, M. E., 1981, Altitude and configuration of water table in High Plains regional aquifer of Kansas, 1975: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-144, scale 1:500,000, 1 sheet.
- \_\_\_\_ 1982, Altitude and configuration of the water table in the High Plains aquifer of Kansas, pre-1950: U.S. Geological Survey Water-Resources Investigations, Open-File Report 82-117, scale 1:500,000, 1 sheet.
- Stullken, L. E., Weakly, E. C., Gutentag, E. D., and Slagle, S. E., 1974, Hydrogeologic data from Greeley, Wichita, Scott, and Lane Counties, Kansas: Kansas Geological Survey Basic Data Series, Ground-Water Release No. 4, 58 p.
- \*Theis, C. V., Burleigh, H. P., and Waite, H. A., 1935, Ground water in the southern High Plains: U.S. Department of the Interior Memorandum for the Press, October 1935, 4 p.
- \*Thomas, H. E., 1962, The meteorological phenomenon of drought in the Southwest: U.S. Geological Survey Professional Paper 372-A, p. A1-A43.
- U.S. Geological Survey, 1952, Kansas-Missouri floods of July 1, 1951, with a section on Fluctuations of ground-water levels by V. C. Fishel: U.S. Geological Survey Water-Supply Paper 1139, 239 p.

- \_\_\_\_ 1955, Availability, use, and control of water: Report of the Arkansas-White-Red Basins Inter-Agency Committee, pt. 2, sec. 17, 122 p.
- \_\_\_\_ 1958, Pumping tests at the Goodyear Tire and Rubber Company, Topeka, Kansas: U.S. Geological Survey open-file report, 12 p.
- \_\_\_\_ 1959, Floods of the Kansas River, Topeka, Kansas, in 1935 and 1951: U.S. Geological Survey Hydrologic Investigations Atlas HA-14, scale 1:24,000, 1 sheet.
- \_\_\_\_ 1962, Surface water records of Kansas, 1961: U.S. Geological Survey Water-Data Report, 165 p.
- \_\_\_\_ 1963, Surface water records of Kansas, 1962: U.S. Geological Survey Water-Data Report, 179 p.
- \_\_\_\_ 1964a, Status of water resources investigations in Kansas: U.S. Geological Survey folder.
- \_\_\_\_ 1964b, Surface water records of Kansas, 1963: U.S. Geological Survey Water-Data Report, 191 p.
- \_\_\_\_ 1965, Surface water records of Kansas, 1964: U.S. Geological Survey Water-Data Report, 215 p.
- \_\_\_\_ 1966a, Ground water in the Cimarron River basin, New Mexico, Colorado, Kansas, and Oklahoma: U.S. Geological Survey open-file report, 51 p.
- \_\_\_\_ 1966b, Water quality records in Kansas, 1964: U.S. Geological Survey Water-Data Report, 205 p.
- \_\_\_\_ 1966c, Water resources data for Kansas--Part 1, Surface water records, 1965: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_ 1966d, Water resources investigations in Kansas, 1965: U.S. Geological Survey folder.
- \_\_\_\_ 1967a, Water resources data for Kansas--Part 1, Surface water records, 1966: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_ 1967b, Water resources data for Kansas--Part 2, Water quality records, 1965: U.S. Geological Survey Water-Data Report, 223 p.
- \_\_\_\_ 1968a, Water resources data for Kansas--Part 1, Surface water records, 1967: U.S. Geological Survey Water-Data Report, 204 p.
- \_\_\_\_ 1968b, Water resources data for Kansas--Part 2, Water quality records, 1966: U.S. Geological Survey Water-Data Report, 223 p.
- \_\_\_\_ 1969a, Water resources data for Kansas--Part 1, Surface water records, 1968: U.S. Geological Survey Water-Data Report, 212 p.
- \_\_\_\_ 1969b, Water resources investigations in Kansas, 1968: U.S. Geological Survey folder.

- \_\_\_\_ 1970a, Water resources data for Kansas--Part 1, Surface water records, 1969: U.S. Geological Survey Water-Data Report, 216 p.
- \_\_\_\_ 1970b, Water resources data for Kansas--Part 2, Water quality records, 1967: U.S. Geological Survey Water-Data Report, 191 p.
- \_\_\_\_ 1970c, Water resources data for Kansas--Part 2, Water quality records, 1968: U.S. Geological Survey Water-Data Report, 225 p.
- \_\_\_\_ 1971a, Water resources data for Kansas--Part 1, Surface water records, 1970: U.S. Geological Survey Water-Data Report, 216 p.
- \_\_\_\_ 1971b, Water resources data for Kansas--Part 2, Water quality records, 1969: U.S. Geological Survey Water-Data Report, 201 p.
- \_\_\_\_ 1971c, Water resources data for Kansas--Part 2, Water quality records, 1970: U.S. Geological Survey Water-Data Report, 159 p.
- \_\_\_\_ 1972a, Water resources data for Kansas--Part 1, Surface water records, 1971: U.S. Geological Survey Water-Data Report, 206 p.
- \_\_\_\_ 1972b, Water resources data for Kansas--Part 2, Water quality records, 1971: U.S. Geological Survey Water-Data Report, 140 p.
- \_\_\_\_ 1972c, Water resources investigations in Kansas, 1972: U.S. Geological Survey folder.
- \_\_\_\_ 1973a, Water resources data for Kansas--Part 1, Surface water records, 1972: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_ 1973b, Water resources data for Kansas--Part 2, Water quality records, 1972: U.S. Geological Survey Water-Data Report, 154 p.
- \_\_\_\_ 1974a, Water resources data for Kansas--Part 1, Surface water records, 1973: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_ 1974b, Water resources data for Kansas--Part 2, Water quality records, 1973: U.S. Geological Survey Water-Data Report, 168 p.
- \_\_\_\_ 1975a, Water resources data for Kansas--Part 1, Surface water records, 1974: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_ 1975b, Water resources data for Kansas--Part 2, Water quality records, 1974: U.S. Geological Survey Water-Data Report, 188 p.
- \_\_\_\_ 1976, Water resources data for Kansas, water year 1975: U.S. Geological Survey Water-Data Report KS-75-1, 405 p.
- \_\_\_\_ 1977, Water resources data for Kansas, water year 1976: U.S. Geological Survey Water-Data Report KS-76-1, 395 p.
- \_\_\_\_ 1978a, Water resources data for Kansas, water year 1977: U.S. Geological Survey Water-Data Report KS-77-1, 618 p.

- \_\_\_\_ 1978b, Water resources data for Kansas, water year 1978: U.S. Geological Survey Water-Data Report KS-78-1, 656 p.
- \_\_\_\_ 1978c, Water resources investigations in Kansas: U.S. Geological Survey folder.
- \_\_\_\_ 1978d, Water-resources investigations in Kansas, fiscal year 1977: U.S. Geological Survey, Kansas District, 80 p.
- \_\_\_\_ 1978e, Water-resources investigations in Kansas, 1978: U.S. Geological Survey Water Index folder.
- \_\_\_\_ 1979, Water resources data for Kansas, water year 1978: U.S. Geological Survey Water-Data Report KS-78-1, 656 p.
- \_\_\_\_ 1980a, Water resources data for Kansas, water year 1979--volume 1. Missouri River basin: U.S. Geological Survey Water-Data Report KS-79-1, 372 p.
- \_\_\_\_ 1980b, Water resources data for Kansas, water year 1979--volume 2. Arkansas River basin: U.S. Geological Survey Water-Data Report KS-79-2, 362 p.
- \_\_\_\_ 1981a, Water resources data for Kansas, water year 1980--volume 1. Missouri River basin: U.S. Geological Survey Water-Data Report KS-80-1, 422 p.
- \_\_\_\_ 1981b, Water resources data for Kansas, Water year 1980--volume 2. Arkansas River basin: U.S. Geological Survey Water-Data Report KS-80-2, 340 p.
- \_\_\_\_ 1982, Water resources data for Kansas, water year 1981: U.S. Geological Survey Water-Data Report KS-81-1, 566 p.
- \*Waite, H. A., 1942, Geology and ground-water resources of Ford County, Kansas: Kansas Geological Survey Bulletin 43, 250 p.
- \* \_\_\_\_ 1947, Geology and ground-water resources of Scott County, Kansas: Kansas Geological Survey Bulletin 66, 216 p.
- Walters, K. L., 1953, Geology and ground-water resources of Jackson County, Kansas: Kansas Geological Survey Bulletin 101, 91 p.
- \_\_\_\_ 1954, Geology and ground-water resources of Marshall County, Kansas: Kansas Geological Survey Bulletin 106, 116 p.
- \_\_\_\_ 1956, Geology and ground-water resources of Rawlins County, Kansas: Kansas Geological Survey Bulletin 117, 100 p.
- \_\_\_\_ 1961, Geology and ground-water resources of Sumner County, Kansas: Kansas Geological Survey Bulletin 151, 198 p.
- Walters, K. L., and Bayne, C. K., 1959, Geology and ground-water resources of Clay County, Kansas: Kansas Geological Survey Bulletin 136, 106 p.

- Ward, J. R., 1971, Geohydrology of Atchison County, northeastern Kansas: U.S. Geological Survey open-file report, 22 p.
- \_\_\_\_\_, 1973, Geohydrology of Atchison County, northeastern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-467, scale 1:62,500, 2 sheets.
- \_\_\_\_\_, 1974, Geohydrology of Nemaha County, northeastern Kansas: Kansas Geological Survey Ground-Water Series No. 2, 19 p.
- Ward, P. E., and Leonard, A. R., 1961, Hypothetical circulation of ground water around salt springs in western Oklahoma, Texas, and Kansas: U.S. Geological Survey Professional Paper 424-D, p. D150.
- Waterman, W. D., 1952, Geology and hydrology of the Kanopolis Unit in Ellsworth, McPherson, and Saline Counties, Kansas, with a section on the chemical quality of the water by R. A. Krieger: Kansas Geological Survey Open-File Report ND-27, 186 p.
- Watts, K. R., and Stullken, L. E., 1981, Generalized configuration of the base of the High Plains aquifer in Kansas: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-344, scale 1:500,000, 1 sheet.
- \*Williams, C. C., 1944, Ground-water conditions in the Neosho River valley in the vicinity of Parsons, Kansas: Kansas Geological Survey Bulletin 52, pt. 2, p. 29-80.
- \* \_\_\_\_\_ 1946, Ground-water conditions in Arkansas River valley in the vicinity of Hutchinson, Kansas: Kansas Geological Survey Bulletin 64, pt. 5, p. 145-216.
- \* \_\_\_\_\_ 1948, Contamination of deep water wells in southeastern Kansas: Kansas Geological Survey Bulletin 76, pt. 2, p. 13-28.
- \*Williams, C. C., and Bayne, C. K., 1946, Ground-water conditions in Elm Creek valley, Barber County, Kansas: Kansas Geological Survey Bulletin 64, pt. 3, p. 77-124.
- Williams, C. C., and Lohman, S. W., 1947, Methods used in estimating the ground water supply in the Wichita, Kansas well-field area: Transactions of the American Geophysical Union, v. 28, no. 1, p. 120-131.
- \* \_\_\_\_\_ 1949, Geology and ground-water resources of a part of south-central Kansas, with specific references to the Wichita municipal water supply: Kansas Geological Survey Bulletin 79, 455 p.
- Winslow, J. D., 1972, Geohydrology of Jefferson County, northeastern Kansas: Kansas Geological Survey Bulletin 202, pt. 4, 20 p.
- Winslow, J. D., McGovern, H. E., and Mackey, H. L., 1968, Water-level changes in Grant and Stanton Counties, Kansas, 1939-1968: Kansas Geological Survey Special Distribution Publication 37, 18 p.

- Winslow, J. D., and Nuzman, C. E., 1966, Electronic simulation of ground-water hydrology in the Kansas River valley near Topeka, Kansas: Kansas Geological Survey Special Distribution Publication 29, 24 p.
- Winslow, J. D., Nuzman, C. E., and Fader, S. W., 1964, Water-level changes in Grant and Stanton Counties, 1939-1964: Kansas Geological Survey Special Distribution Publication 10, 11 p.
- \*Wolff, H. C., 1911, The utilization of the underflow near St. Francis, Kansas: U.S. Geological Survey Water-Supply Paper 258, p. 98-119.

#### LISTING BY PUBLICATION SERIES

##### U.S. Geological Survey

##### Annual Reports

- \*14. Natural mineral waters of the United States by A. C. Peale, 1894: Part II-b, p. 49-88.
- \*16. Water resources of a portion of the Great Plains by Robert Hay, 1895: Part II, p. 535-588.
- \*18. Report of progress of stream measurements for the calendar year 1896 by A. P. Davis, 1897: Part IV, p. 1-418.
- \*19. Report of progress of stream measurements for the calendar year 1897 by F. H. Newell, 1898: Part IV, p. 1-632.
- \*20. Report of progress on stream measurements for the calendar year 1898 by F. H. Newell, 1899: Part IV, p. 1-562.
- \*21. Report of progress of stream measurements for the calendar year 1899 by F. H. Newell, 1900: p. 9-488.
- \*21. The High Plains and their utilization by W. D. Johnson, 1901: Part IV-c, p. 743-768.
- \*22. Report of progress of stream measurements for the calendar year 1900 by F. H. Newell, 1901: p. 9-506.
- \*22. The High Plains and their utilization (conclusion) by W. D. Johnson, 1902: Part IV-c, p. 671-690.

Note: Beginning with the 23rd (1901-2), the annual reports of the Geological Survey contained no technical papers but were published separately until 1933. Since 1933, a condensed form has been included in the annual report of the Secretary of the Interior.

## Bulletins

- \*32. Lists and analyses of the mineral springs of the United States (a preliminary study) by A. C. Peale, 1886: 235 p.
- \*57. A geological reconnaissance in southwestern Kansas by Robert Hay, 1890: 49 p.
- \*131. Report of progress of the Division of Hydrography for 1893 and 1894 by F. H. Newell, 1895: 126 p.
- \*154. A gazetteer of Kansas by Henry Gannett, 1898: 246 p.
- \*296. Economic geology of the Independence quadrangle, Kansas by F. C. Schrader and Erasmus Haworth, 1906: 74 p.
- 1087-G. Uranium content of ground and surface waters in a part of the central Great Plains by E. R. Landis, 1960: p. 223-258.
- 1215. Geology of Shawnee County, Kansas by W. D. Johnson, Jr., W. L. Adkinson, and H. C. Wagner, 1967: 254 p.

## Circulars

- \*273. Water resources of the Kansas City area, Missouri and Kansas by V. C. Fishel, J. K. Searcy, and F. H. Rainwater, 1953: 52 p.

## Geologic Atlases

### Folio

- \*109. Description of Cottonwood Falls quadrangle, Kansas by C. S. Prosser and J. W. Beede, 1904: 6 p., 2 pl.
- \*148. Description of the Joplin district, Missouri-Kansas by W. S. T. Smith and C. E. Siebenthal, 1907: 20 p., 27 figs.
- \*159. Description of the Independence quadrangle, Kansas by F. C. Schrader, 1908: 7 p., 3 pl.
- \*206. Description of the Leavenworth and Smithville quadrangles, Missouri-Kansas by Henry Hinds and F. C. Greene, 1917: 13 p., 10 pl., 10 figs.
- \*212. Description of the Syracuse and Lakin quadrangles, Kansas by N. H. Darton, 1920: 10 p., 6 pl., 7 figs.

## Hydrologic Investigations Atlases

- HA-2. Areas of principal ground-water investigations in the Arkansas, White, and Red River basins by S. W. Lohman and V. M. Burtis, 1953: scale 1:2,500,000, 1 sheet.
- HA-3. General availability of ground water and depths to water level in the Arkansas, White, and Red River basins by S. W. Lohman, V. M. Burtis, and others, 1953: scale 1:2,500,000, 1 sheet.
- HA-14. Floods of the Kansas River, Topeka, Kansas in 1935 and 1951 by U.S. Geological Survey, 1959: scale 1:24,000, 1 sheet.
- HA-58. Emergency water supplies in the Wichita area, Kansas by C. W. Lane, E. L. Reavis, and G. J. Stramel, 1962: scale 1:250,000, 1 sheet, 36 p.
- HA-63. Floods at Wichita, Kansas by D. W. Ellis and others, 1963: scale 1:24,000, 5 sheets.
- HA-212. Annual runoff in the conterminous United States by M. W. Busby, 1966: scale 1:7,500,000, 1 sheet.
- HA-217. General availability of ground water and depth to water level in the Missouri River basin by G. A. La Rocque, Jr., 1966: scale 1:2,500,000, 1 sheet.
- HA-279. Geology and ground water in Labette County, Kansas by W. L. Jungmann and C. C. Williams, 1968: scale 1:63,390, 1 sheet.
- HA-416. Ground water in Kearny County, southwestern Kansas by E. D. Gutentag, D. H. Lobmeyer, and H. E. McGovern, 1972: scale 1:125,000, 2 sheets.
- HA-429. Water resources of northwestern Kansas by R. H. Pearl, R. S. Roberts, K. M. Keene, and T. J. McClain, 1972: scale 1:250,000, 2 sheets.
- HA-442. Ground water in Finney County, southwestern Kansas by E. D. Gutentag, D. H. Lobmeyer, H. E. McGovern, and W. A. Long, 1972: scale 1:250,000, 3 sheets.
- HA-462. Geohydrology of Doniphan County, northeastern Kansas by C. K. Bayne, 1973: scale 1:62,500, 1 sheet.
- HA-467. Geohydrology of Atchison County, northeastern Kansas by J. R. Ward, 1973: scale 1:62,500, 2 sheets.
- HA-515. Ground water in Haskell County, southwestern Kansas by E. D. Gutentag and L. E. Stullken, 1974: scale 1:250,000, 2 sheets.
- HA-516. Water resources of Hamilton County, southwestern Kansas by D. H. Lobmeyer and C. G. Sauer, 1974: scales 1:250,000 and 1:500,000, 2 sheets.
- HA-517. Ground water in Gray County, southwestern Kansas by H. E. McGovern and W. A. Long, 1974: scale 1:250,000, 2 sheets.

## Hydrologic Investigation Atlases--Continued

- HA-521. Water resources of Gove, Logan, and Wallace Counties, west-central Kansas by T. J. McClain, E. D. Jenkins, K. M. Keene, and M. E. Pabst, 1975: scales 1:250,000 and 1:500,000, 2 sheets.

### Journal of Research

- Hedman, E. R., and Kastner, W. M., 1977, Streamflow characteristics related to channel geometry in the Missouri River basin: U.S. Geological Survey Journal of Research, v. 5, no. 3, p. 285-300.
- Hejl, H. R., Jr., 1977, A method for adjusting values of Manning's roughness coefficient for flooded urban areas: U.S. Geological Survey Journal of Research, v. 5, no. 5, p. 541-545.

### Professional Papers

- \*32. Preliminary report on the geology and underground water resources of the central Great Plains by N. H. Darton, 1905: 433 p.
- \*135. The composition of the river and lake waters of the United States by F. W. Clarke, 1924: 133 p.
- \*272-D. Evaporation from the 17 Western States by J. S. Meyers, with a section on evaporation rates by T. J. Nordenson, 1962: p. 71-100.
- \*352-D. Channel widening and flood-plain construction along the Cimarron River in southwestern Kansas by S. A. Schumm and R. W. Lichty, 1963: p. 71-88.
- 372-A. The meteorologic phenomenon of drought in the Southwest by H. E. Thomas, 1962: p. A1-A43.
- 424-B. Recent flood-plain formation along the Cimarron River in Kansas by S. A. Schumm and R. W. Lichty, 1961: p. B112.
- 424-D. Hypothetical circulation of ground water around salt springs in western Oklahoma, Texas, and Kansas by P. E. Ward and A. R. Leonard, 1961: p. D150.
- \*450-E. Use of a neutron moisture probe to determine the storage coefficient of an unconfined aquifer by W. R. Meyer, 1963: p. E174-E176.
- \*501-B. A method for evaluating oil-field-brine pollution of the Walnut River in Kansas by R. B. Leonard, in Geological Survey Research, 1964, Chapter B, 1964: p. B173-B176.
- \*501-C. Relation of annual runoff to meteorological factors by M. W. Busby, in Geological Survey Research, 1964, Chapter C, 1964: p. C188-C189.

## Professional Papers--Continued

- \*575-C. Two methods of estimating base flow at ungaged stream sites in Kansas and adjacent States by L. W. Furness and M. W. Busby, in Geological Survey Research, 1967, Chapter C, 1967: p. C208-C211.
- \*600-B. Neutron moisture measurements by continuous- and point-logging procedures by R. C. Prill and W. R. Meyer, in Geological Survey Research, 1968, Chapter B, 1968: p. B226-B230.
- 600-D. Movement of moisture in the unsaturated zone in a dune area, southwestern Kansas by R. C. Prill, in Geological Survey Research, 1968, Chapter D, 1968: p. D1-D9.
- 650-C. Hydrogeologic reconnaissance of the Canary Islands, Spain by R. J. Dingman and Jose Nunez, in Geological Survey Research, 1969, Chapter C, 1969: p. C210-C208.
- 650-C. Neutron moisture measurements by continuous- and point-logging procedures by R. C. Prill and W. R. Meyer, 1969: p. C226.
- 650-D. New locations of Pleistocene (Kansan) molluscan and ostracode faunas, Dickinson County, Kansas by E. D. Gutentag and Carlos Galli-Olivier, in Geological Survey Research, 1969: p. D148-D154.
- 1021. Movement of moisture in the unsaturated zone in a loess-mantled area, southwestern Kansas by R. C. Prill, 1977: 21 p.
- 1242. Perennial-streamflow characteristics related to channel geometry and sediment in Missouri River basin by W. R. Osterkamp and E. R. Hedman, 1982: 37 p.

## Water-Supply Papers

- \*6. Underground waters of southwestern Kansas by Erasmus Haworth, 1897: 65 p.
- \*67. The motions of underground waters by C. S. Slichter, 1902: 106 p.
- \*96. Destructive floods in the United States in 1903, contains Kansas floods and hydrographic data by E. C. Murphy, 1904: p. 21-78.
- \*145. Water resources of the Joplin district, Missouri-Kansas by W. S. T. Smith, 1905: p. 74-83.
- \*147. Destructive floods in the United States in 1904, contains Kansas floods by E. C. Murphy, 1905: p. 59-113.
- \*149. Preliminary list of deep borings in the United States by N. H. Darton, 1905: 175 p.

## Water-Supply Papers--Continued

- \*153. The underflow in the Arkansas Valley in western Kansas by C. S. Slichter, 1906: 90 p.
- \*258. The utilization of the underflow near St. Francis, Kansas by H. C. Wolff, 1911: p. 98-119.
- \*273. Quality of the water supplies of Kansas (with a preliminary report on stream pollution by mine waters in southeastern Kansas, by E. H. S. Bailey) by H. N. Parker, 1911: 375 p.
- \*345-A. Preliminary report on ground water for irrigation in the vicinity of Wichita, Kansas by O. E. Meinzer, 1915: 9 p.
- \*796-B. Flood on Republican and Kansas Rivers, May and June 1935 by Robert Follansbee and J. B. Spiegel, 1937: p. 21-52.
- 1139. Kansas-Missouri floods of July 1951 (with a section on Fluctuations of ground water levels by V. C. Fishel) by U.S. Geological Survey, 1952: 239 p.
- \*1499-I. Water resources of the Wichita area, Kansas by L. R. Petri, C. W. Lane, and L. W. Furness, 1964: 69 p.
- \*1651. Chemical quality of surface waters and sedimentation in the Saline River basin, Kansas by P. R. Jordan, B. F. Jones, and L. R. Petri, 1964: 90 p.
- \*1669-S. Yearly variations in runoff for the conterminous United States, 1931-60 by M. W. Busby, 1963: p. S1-S49.
- \*1798-B. Fluvial sediment in the Little Arkansas River basin, Kansas by C. D. Albert and G. J. Stramel, 1966: p. B1-B30.
- \*1800. Kansas by V. C. Fishel, in McGuinness, C. L., The role of ground water in the national water situation, 1963: 1121 p.
- \*1819-H. Fluvial sediment and chemical quality of water in the Little Blue River basin, Nebraska and Kansas by J. C. Mundorff and K. M. Waddell, 1966: p. H1-H45.
- 1850-D. Floods in Arkansas River basin, Colorado, Kansas, and New Mexico by R. J. Snipes and others, 1974: D1-D97.
- 1891. Geohydrology of Finney County, southwestern Kansas by W. R. Meyer, E. D. Gutentag, and D. H. Lobmeyer, 1970: 117 p.
- 1982. Chemical quality of water in the Walnut River basin, south-central Kansas by R. B. Leonard, 1972: 113 p.

## Water-Supply Papers--Continued

2193. Streamflow characteristics related to channel geometry of streams in western United States by E. R. Hedman and W. R. Osterkamp, 1982: 17 p.
2200. Analysis and computer simulation of stream-aquifer hydrology, Arkansas River valley, southwestern Kansas by R. A. Barker, L. E. Dunlap, and C. G. Sauer, 1983: 59 p.

## Water-Resources Investigations Reports

- 41-74. Application of statistical techniques to the estimation of ground-water withdrawals in northwestern Kansas by W. M. Kastner, 1974: 11 p.
- 27-75. Land subsidence caused by dissolution of salt near four oil and gas wells in central Kansas by S. W. Fader, 1975: 28 p.
- 76-12. Results of infiltration tests near Scott City, western Kansas by J. B. Gillespie and G. D. Hargadine, 1975: 29 p.
- 78-63. Floods in Kansas City, Missouri and Kansas, September 12-13, 1977 by L. D. Hauth and W. J. Carswell, Jr., 1978: 43 p.
- 78-87. Hydrologic data for Soldier Creek basin, Kansas by W. J. Carswell, Jr., 1978: 26 p.
- 78-135. Guidelines for the use of structural versus regression analysis in geomorphic studies by W. R. Osterkamp, J. M. McNellis, and P. R. Jordan, 1978: 22 p.
- 79-15. Variation of alluvial-channel width with discharge and character of sediment by W. R. Osterkamp, 1979: 11 p.
- 79-49. Relation of sediment yield to climatic and physical characteristics in the Missouri River basin by P. R. Jordan, 1979: 26 p.
- 79-92. Evaluation of methods for estimating ground-water withdrawals in western Kansas by C. H. Baker, Jr., 1979: 70 p.
- 79-105. Hydrologic and related data for water-supply planning in an intensive-study area, northeastern Wichita County, Kansas by Jack Kume, L. E. Dunlap, E. D. Gutentag, and J. G. Thomas, 1979: 51 p.
- 80-39. Simulated water-level declines near Marienthal, west-central Kansas by L. E. Dunlap, 1980: 15 p.
- 80-74. Preliminary analysis of regional-precipitation periodicity by C. A. Perry, 1980: 26 p.

## Water-Resources Investigations Reports--Continued

- 80-91. Geohydrology and model analysis for water-supply management in a small area of west-central Kansas by L. E. Dunlap, Jack Kume, and J. G. Thomas, 1980: 59 p.
- 81-8. Selected hydrologic relations for Soldier Creek, northeastern Kansas by W. J. Carswell, Jr., 1981: 68 p.
- 81-43. Saline ground-water discharge to the Smoky Hill River between Salina and Abilene, central Kansas by J. B. Gillespie and G. D. Hargadine, 1981: 71 p.
- 82-11. Nitrate-nitrogen concentrations in ground water from three selected areas in Kansas by T. B. Spruill, 1982: 32 p.
- 82-4005. Water-quality and fluvial-sediment characteristics of selected streams in northeast Kansas by H. E. Bevans, 1982: 53 p.
- 82-4011. Determination of irrigation pumpage in parts of Kearny and Finney Counties, southwestern Kansas by R. J. Lindgren, 1982: 26 p.
- 82-4074. Physical and hydrological environments of the Mulberry coal reserves in eastern Kansas by J. F. Kenny, H. E. Bevans, and A. M. Diaz, 1982: 50 p.
- 82-4079. Hydrologic maps of the High Plains aquifer, January 1981, southwestern Kansas by J. M. Spinazola, 1982: scale 1:125,000, 8 sheets.
- 82-4095. A numerical model to evaluate proposed ground-water allocations in southwest Kansas by D. G. Jorgensen, H. F. Grubb, C. H. Baker, Jr., G. E. Hilmes, and E. D. Jenkins, 1982: 46 p.
- 82-4123. Flood of June 15, 1981, in Great Bend and vicinity, central Kansas by R. W. Clement and D. G. Johnson, 1982: 9 p.
- 83-4007. Application of remote-sensing techniques to hydrologic studies in selected coal-mined areas of southeastern Kansas by J. F. Kenny and J. R. McCauley, 1983: 33 p.
- 83-4095. Depth and thickness of selected units in Upper Permian, Upper Jurassic, and Lower Cretaceous rocks in southwestern Kansas by Jack Kume and J. M. Spinazola, 1983: scale 1:500,000, 7 sheets.
- 83-4110. Improvement of flood-frequency estimates for selected small watersheds in eastern Kansas using a rainfall-runoff model by R. W. Clement, 1983: 22 p.
- 83-4226. Hydrology of the Ogallala aquifer in Ford County, southwestern Kansas by J. M. Spinazola and M. T. Dealy, 1983: 58 p.

Water-Resources Investigations, Open-File Reports

- 79-1288. Multiyear low flow in southeastern Kansas by W. J. Carswell, Jr., 1979: 26 p.
- 80-734. Multiyear low flow of streams in northeastern Kansas by W. J. Carswell, Jr., and S. V. Bond, 1980: 26 p.
- 80-764. A procedure for predicting concentrations of dissolved solids and sulfate ion in streams draining areas strip mined for coal by H. E. Bevans, 1980: 17 p.
- 81-128. Sediment and channel-geometry investigations for Kansas River Bank-Stabilization Study, Kansas, Nebraska, and Colorado by W. R. Osterkamp, R. E. Curtis, Jr., and H. G. Crowther, 1981: 72 p.
- 81-144. Altitude and configuration of water table in High Plains regional aquifer of Kansas, 1975 by L. E. Stullken and M. E. Pabst, 1981: scale 1:500,000, 1 sheet.
- 81-206. Plan of study for the Central Midwest Regional Aquifer System Analysis in parts of Arkansas, Colorado, Kansas, Missouri, Nebraska, New Mexico, Oklahoma, South Dakota, and Texas by D. G. Jorgensen and D. C. Signor, 1981: 28 p.
- 81-333. Map of water table in Graham County, northwestern Kansas, March 1979 by J. M. Spinazola, 1981: scale 1:125,000, 1 sheet.
- 81-334. Map of water table in Solomon River valley, Waconda Lake to Solomon, north-central Kansas, May 1980 by T. B. Reed, 1981: scale 1:125,000, 1 sheet.
- 81-344. Generalized configuration of the base of the High Plains aquifer in Kansas by K. R. Watts and L. E. Stullken, 1981: scale 1:500,000, 1 sheet.
- 81-348. Water-resources investigations of the U.S. Geological Survey in Kansas--Fiscal years 1979 and 1980 by H. E. McGovern and L. J. Combs, 1981: 107 p.
- 81-1004. Altitude and configuration of water table in High Plains aquifer in Kansas, 1980 by M. E. Pabst and L. E. Stullken, 1981: scale 1:500,000, 1 sheet.
- 82-117. Altitude and configuration of the water table in the High Plains aquifer of Kansas, pre-1950 by L. E. Stullken and M. E. Pabst, 1982: scale 1:500,000, 1 sheet.
- 82-429. Altitude and configuration of water table in High Plains aquifer in Kansas, 1960 by M. E. Pabst and L. E. Stullken, 1982: scale 1:500,000, 1 sheet.

## Water-Resources Investigations, Open-File Reports--Continued

- 82-448. Altitude and configuration of water table in High Plains aquifer in Kansas, 1970 by M. E. Pabst and L. E. Stullken, 1982: scale 1:500,000, 1 sheet.
- 82-449. Altitude and configuration of water table in High Plains aquifer in Kansas, 1965, by M. E. Pabst and L. E. Stullken, 1982: scale 1:500,000, 1 sheet.

## Techniques of Water-Resources Investigations

- Book 5, Chapter A1. Methods for determination of inorganic substances in water and fluvial sediments by M. W. Skougstad and others, 1979: 626 p.

## Open-File Reports

- 1940. Memorandum in regard to prospecting for a softer water supply for the Kansas State Penitentiary at Lansing, Kansas by S. W. Lohman and Alexander Mitchell: 17 p.
- 1951. Chemical quality of the surface waters in the Saline River basin, Kansas, a progress report by W. H. Durum: 54 p.
- 1957. History of natural flow, Kansas River by E. R. Leeson: 5 p.
- 1958. Pumping tests at the Goodyear Tire and Rubber Company, Topeka, Kansas by U.S. Geological Survey: 12 p.
- 1962. Effect of the Kirwin reservoir, Kansas, on ground-water levels by M. S. Bedinger and H. H. Tanaka: 11 p.
- 1965. Small area flood volume study, Rock Creek basin, Meriden, Kans.--progress report, July 1963 to Feb. 1965 by L. W. Furness: 42 p.
- 1966. Ground water in the Cimarron River basin, New Mexico, Colorado, Kansas, and Oklahoma by U.S. Geological Survey: 51 p.
- 1966. Preliminary flood-frequency relations for small streams in Kansas by T. J. Irza: 19 p.
- 1967. Flood runoff from partially urbanized areas, Wichita, Kansas--Report No. 1, Analysis of initial conditions by I. C. James, II: 62 p.
- 1968. Streamflow generalization in an area of the central United States by I. C. James, II: 60 p.
- 1969. Evaluation of the effects of the U.S. Bureau of Reclamation ring dike on the ground-water flow and water quality in the Downs area, Kansas by R. J. Dingman: 19 p.

Open-File Reports--Continued

1969. Finney County basic data by W. R. Meyer, E. D. Gutentag, and D. H. Lobmeyer: 146 p.
1969. Hydrologic investigation, Fort Carson, Colorado Expansion Project, Civil Action No. 8920-Tract 202, El Paso County, Colorado by E. D. Jenkins and R. T. Hurr: 34 p.
1970. Ground water in Kearny County, southwestern Kansas by E. D. Gutentag, D. H. Lobmeyer, and H. E. McGovern: 40 p.
1971. Geohydrology of Atchison County, northeastern Kansas by J. R. Ward: 22 p.
1971. Geohydrology of Doniphan County, northeastern Kansas by C. K. Bayne: 21 p.
1971. Tests of the Stroebel Spring, a supplementary study of the Fort Carson expansion project, Civil Action No. 8920, Tract No. 202, El Paso County, Colorado by E. D. Jenkins: 17 p.
1972. Geohydrologic data for numerical modeling of ground-water withdrawals in the Little Arkansas River basin area, south-central Kansas by D. B. Richards and T. W. Dunaway: 426 p.
1973. Fluvial sediment characteristics of the Kansas River at Wamego, Kansas, 1957-70 by C. D. Albert: 13 p.
1974. Progress report on streamflow characteristics as related to channel geometry of streams in the Missouri River basin by E. R. Hedman and W. M. Kastner: 24 p.
- 4-75. Water development for irrigation in northwestern Kansas by E. D. Jenkins and M. E. Pabst, 1975: 39 p.
- 75-365. Ground water in the Verdigris River basin, Kansas and Oklahoma by S. W. Fader and R. B. Morton, 1975: 26 p.
- 75-366. Ground water in the Grand (Neosho) River basin, Kansas and Oklahoma by R. B. Morton and S. W. Fader, 1975: 35 p.
- 75-367. Ground water in the Middle Arkansas River basin, Kansas and Oklahoma by S. W. Fader and R. B. Morton, 1975: 44 p.
- 76-405. Geohydrologic maps of the Great Bend Prairie, south-central Kansas by S. W. Fader and L. E. Stullken, 1976: 4 pl.
- 76-457. Map showing percent change in saturated thickness of unconsolidated aquifer, 1950-76, west-central Kansas by E. D. Gutentag, 1975: 1 pl. 77-264.
- 77-264. January 1977 water levels, and data related to water-level changes since 1950, western Kansas by M. E. Pabst, 1977: 209 p.

Open-File Reports--Continued

- 77-305. Geohydrology of the Great Bend Prairie, south-central Kansas by S. W. Fader and L. E. Stullken, 1977: 53 p.
- 77-675. Map showing percentage decline in saturated thickness of unconsolidated aquifer, 1950-77, west-central Kansas by M. E. Pabst, 1977: 1 pl.
- 78-80. Map showing saturated thickness of the unconsolidated aquifer, southwestern Kansas, January 1975 by E. D. Gutentag, D. H. Lobmeyer, and S. E. Slagle, 1978: 1 pl.
- 78-409. January 1978 water levels, and data related to water-level changes since 1940 or 1950, western Kansas by M. E. Pabst, 1978: 179 p.
- 78-678. Description of data-collection system and synopsis of selected hydrologic data for Soldier Creek basin, Kansas by W. J. Carswell, Jr., 1978: 80 p.
- 78-874. Map showing percentage decrease in saturated thickness of unconsolidated aquifer, 1950-78, west-central Kansas by M. E. Pabst, 1978: 1 pl.
- 78-886. Water in Dakota Formation, Hodgeman and northern Ford Counties, southwestern Kansas by D. H. Lobmeyer and E. C. Weakly, 1978: 81 p.
- 78-969. Map showing saturated thickness of unconsolidated aquifer, southwestern Kansas, January 1978 by M. E. Pabst, 1978: 4 pl.
- 78-974. Determination of peak discharge from rainfall data for urbanized basins, Wichita, Kansas by C. O. Peek and P. R. Jordan, 1978: 49 p.
- 79-561. Water-resources investigations in Kansas--fiscal year 1978 by H. E. McGovern and L. J. Combs, 1979: 85 p.
- 79-925. January 1979 water levels, and data related to water-level changes, western and south-central Kansas by M. E. Pabst, 1979: 213 p.
- 79-1340. Maps showing saturated thickness, January 1979, and percentage decrease in saturated thickness, 1950-79, of unconsolidated aquifer, west-central Kansas by M. E. Pabst, 1979: scale 1:125,000, 2 sheets.
- 80-218. Geohydrology of southwestern Kansas by E. D., Gutentag, D. H. Lobmeyer, and S. E. Slagle, 1980: 97 p.
- 80-326. The use of minicomputers in a distributed information processing system--a feasibility study by S. M. Longwill, J. M. McNellis, and D. R. Posson, 1980: 68 p.
- 80-350. Statistical summaries of water-quality data for streams draining coal-mined areas, southeastern Kansas by H. E. Bevans and A. M. Diaz, 1980: 42 p.

Open-File Reports--Continued

- 80-429. Particle-size analyses of bed and bank material from channels of the Missouri River basin by W. R. Osterkamp and A. G. Wiseman, 1980: 31 p.
- 80-958. January 1980 water levels, and data related to water-level changes, western and south-central Kansas by M. E. Pabst, 1980: 166 pages.
- 81-686. Analysis and computer simulation of stream-aquifer hydrology, Arkansas River valley, southwestern Kansas by R. A. Barker, L. E. Dunlap, and C. A. Sauer, 1981: 130 p.
- 81-908. Hydrologic maps of Ogallala aquifer, west-central Kansas by L. E. Dunlap and J. M. Spinazola, 1981: 4 sheets.
- 81-925. Location of sampling sites and available information on wells sampled in the Kansas Ground-Water-Quality Monitoring Network, 1976-80 by T. B. Spruill and J. F. Kenny, 1981: 49 p.
- 81-1001. January 1981 water levels, and data related to water-level changes, western and south-central Kansas by M. E. Pabst, 1981: 168 p.
- 81-1062. Interpolating water-table altitudes in west-central Kansas using kriging techniques by L. E. Dunlap and J. M. Spinazola, 1981: 51 p.
- 81-1112. Preliminary data from Arbuckle test wells, Miami, Douglas, Saline, and Labette Counties, Kansas by Tony Gogel, 1981: 155 p.
- 82-79. Geohydrology of principal aquifers in the Republican River basin, Kansas by L. E. Dunlap, 1982: 5 sheets.
- 82-93. Geometry, basin characteristics, discharge, and particle-size data from gaged stream-channel sites, western United States by W. R. Osterkamp, E. R. Hedman, and A. G. Wiseman, 1982: 56 p.
- 82-258. Hydrologic maps of the Ogallala aquifer, west-central Kansas, 1979-81 by J. M. Spinazola, 1982: scale 1:125,000, 4 sheets.
- 82-649. January 1982 water levels, and data related to water-level changes, western and south-central Kansas by M. E. Pabst, 1982: 167 p.
- 82-868. Geohydrologic data from sandstone aquifers in southwestern Kansas by Jack Kume and J. M. Spinazola, 1982: 112 p.
- 82-1010. Map showing percentage change in saturated thickness of the High Plains aquifer, west-central Kansas, 1950 to average 1980-82 by M. E. Pabst, 1982: scale 1:125,000, 2 sheets.
- 82-1021. Quality-of-water data and statistical summary for selected coal-mine strip pits in Crawford and Cherokee Counties, southeastern Kansas by L. M. Pope and A. M. Diaz, 1982: 28 p.
- 83-222. Geohydrology and model analysis of stream-aquifer system along the Arkansas River in Kearny and Finney Counties, southwestern Kansas by L. E. Dunlap, R. J. Lindgren, and C. G. Sauer, 1983: 84 p.

## Open-File Reports--Continued

- 83-263. Statistical summaries of selected chemical constituents in Kansas ground-water supplies, 1976-81 by T. B. Spruill, 1983: 29 p.
- 83-528. Kansas ground-water observation-well network, 1983 by M. E. Pabst, 1983: 57 p.
- 83-762. January 1983 water levels, and data related to water-level changes, western and south-central Kansas by M. E. Pabst, 1983: 164 p.
- 83-932. Water-resources investigations of the U.S. Geological Survey in Kansas--fiscal years 1981 and 1982 by J. F. Kenny and L. J. Combs, 1983: 87 p.

## Water Resources Division Bulletins

- 1978. Artificial substrate retriever by L. R. Shelton: July-September, p. 19-22.
- 1979. New instrumentation for the National Water-Use Data Program by C. H. Baker, Jr.: October-December 1978, January-June 1979, p. 46-47.
- 1979. WRD prototype minicomputer system in the Kansas District by J. S. Rosenshein and J. M. McNellis: October-December 1978, January-June 1979, p. 42-45.

## Water-Data Reports

Kansas records of discharge or stage of streams and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1960-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA, 22304.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

## Water-Data Reports--Continued

Beginning with the 1971 water year, water data for streamflows, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year and the volume number; for example, "U.S. Geological Survey Water-Data Report KS-82-1." These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA, 22161.

### Miscellaneous Publications

- 1935. Ground water in the southern High Plains by C. V. Theis, H. P. Burleigh, and H. A. Waite, 1935: U.S. Department of the Interior Memorandum for the Press, October 1935, 4 p.
- 1964. Status of water resources investigations in Kansas: U.S. Geological Survey folder.
- 1966. Water resources investigations in Kansas, 1965: U.S. Geological Survey folder.
- 1969. Water resources investigations in Kansas, 1968: U.S. Geological Survey folder.
- 1972. Water resources investigations in Kansas, 1972: U.S. Geological Survey folder.
- 1978. Water resources investigations in Kansas: U.S. Geological Survey folder.
- 1978. Water-resources investigations in Kansas, fiscal year 1977 by U.S. Geological Survey, Kansas District: 80 p.

### Kansas Department of Health and Environment

#### Bulletins

- 1-2. The relation of the chemical quality of the Whitewater River at Towanda to that of the Walnut River at Winfield, Kansas during the 1963 water year by R. B. Leonard and K. L. Shah, 1964: 18 p.
- 1-3. Results of four chemical-quality surveys of the Walnut River basin, Kansas (December 1961 to October 1963) by R. B. Leonard, 1964: 38 p.

## Bulletins--Continued

- 1-4. Chemical quality of surface waters in Kansas, 1962 water year by J. L. Mayes and Don Culbertson, 1964: 61 p.
- 1-5. Brine in surface water of the Little Arkansas River basin, Kansas by C. D. Albert, 1964: 15 p.
- 1-8. Chemical quality of surface waters in Kansas, 1963 water year by J. L. Mayes and A. M. Diaz, 1965: 67 p.
- 1-10. Effect of irrigation on the chemical quality of low streamflow adjacent to Cedar Bluff Irrigation District, Kansas, a progress report by R. B. Leonard, 1969: 17 p.
- 1-11. Variations in the chemical quality of ground water beneath an irrigated field, Cedar Bluff Irrigation District, Kansas by R. B. Leonard, 1970: 20 p.
- 1-12. Compilation of data for water-quality investigation, Cedar Bluff Irrigation District, Kansas by R. B. Leonard and G. A. Stoltenberg, 1972: 158 p.
- B2-49. Urban water-quality data and statistical summaries for selected sites in the Shunganunga Creek basin, Topeka, Kansas by L. M. Pope, A. M. Diaz, and M. K. Butler, 1983: 203 p.

## Kansas Geological Survey

### Bulletins

- \*27. Ground-water resources of Kansas (with chapters by S. W. Lohman, J. C. Frye, H. A. Waite, T. G. McLaughlin, and B. F. Latta) by R. C. Moore, 1940: 112 p.
- \*35. A preliminary report on the water supply of the Meade artesian basin, Meade County, Kansas by J. C. Frye, 1940: 39 p.
- \*37. Geology and ground-water resources of Stanton County, Kansas by B. F. Latta, 1941: 119 p.
- \*38, pt. 2. Ground-water conditions in the vicinity of Lawrence, Kansas by S. W. Lohman, 1941: 64 p.
- \*38, pt. 9. Reconnaissance of ground-water resources of Atchison County, Kansas by J. C. Frye, 1941: p. 237-260.

Bulletins--Continued

- \*40. Geology and ground-water resources of Morton County, Kansas by T. G. McLaughlin, 1942: 126 p.
- \*41, pt. 1. Ground-water supplies available for national defense industries in south-central Kansas by S. W. Lohman, 1942: 19 p.
- \*41, pt. 2. Ground-water supplies available in Kansas for national defense in Kansas for national defense industries by S. W. Lohman, J. C. Frye, H. A. Waite, V. C. Fishel, T. G. McLaughlin, B. F. Latta, and G. E. Abernathy, 1942: p. 21-28.
- \*43. Geology and ground-water resources of Ford County, Kansas by H. A. Waite, 1942: 250 p.
- \*45. Geology and ground-water resources of Meade County, Kansas by J. C. Frye, 1942: 152 p.
- \*49. Geology and ground-water resources of Hamilton and Kearny Counties, Kansas by T. G. McLaughlin, 1943: 220 p.
- \*50. Ground water in the oil-field areas of Ellis and Russell Counties, Kansas by J. C. Frye and J. J. Brazil, 1943: 104 p.
- \*52, pt. 2. Ground-water conditions in the Neosho River valley in the vicinity of Parsons, Kansas by C. C. Williams, 1944: p. 29-80.
- \*55. Geology and ground-water resources of Finney and Gray Counties, Kansas by B. F. Latta, 1944: 272 p.
- \*59. Geology and ground-water resources of Thomas County, Kansas by J. C. Frye, 1945: 110 p.
- \*61. Geology and ground-water resources of Grant, Haskell, and Stevens Counties, Kansas by T. G. McLaughlin, 1946: 221 p.
- \*64, pt. 3. Ground-water conditions in Elm Creek valley, Barber County, Kansas by C. C. Williams and C. K. Bayne, 1946: p. 77-124.
- \*64, pt. 5. Ground-water conditions in Arkansas River valley in the vicinity of Hutchinson, Kansas by C. C. Williams, 1946: p. 145-216.
- \*65. Geology and ground-water resources of Kiowa County, Kansas by B. F. Latta, 1948: 151 p.
- \*66. Geology and ground-water resources of Scott County, Kansas by H. A. Waite, 1947: 216 p.

Bulletins--Continued

- \*69. Geology and ground-water resources of Seward County, Kansas by F. E. Byrne and T. G. McLaughlin, 1947: 140 p.
- \*71. Ground-water resources of the Kansas City, Kansas, area by V. C. Fishel, 1948: 109 p.
- \*73. Geology and ground-water resources of Republic County and northern Cloud County, Kansas by V. C. Fishel, 1948: 194 p.
- \*76, pt. 2. Contamination of deep water wells in southeastern Kansas by C. C. Williams, 1948: p. 13-28.
- \*76, pt. 6. Ground-water supplies at Hays, Victoria, Walker, Gorham, and Russell, Kansas, with special reference to future needs by B. F. Latta, 1948: p. 121-196.
- \*79. Geology and ground-water resources of a part of south-central Kansas, with specific references to the Wichita municipal water supply by C. C. Williams and S. W. Lohman, 1949: 455 p.
- \*84. Ground-water conditions in the Smoky Hill Valley in Saline, Dickinson, and Geary Counties, Kansas by B. F. Latta, 1949: 152 p.
- \*80. Geology and ground-water resources of Pawnee and Edwards Counties, Kansas by T. G. McLaughlin, 1949: 189 p.
- \*81. Geology and ground-water resources of Norton County and northwestern Phillips County, Kansas by J. C. Frye and A. R. Leonard, 1949: 144 p.
- \*85. Geology and ground-water resources of Rice County, Kansas by O. S. Fent, 1950: 142 p.
- \*86, pt. 6. Subsurface reconnaissance of glacial deposits in northeastern Kansas by J. C. Frye and K. L. Walters, 1950: p. 141-158.
- \*88. Geology and ground-water resources of Barton and Stafford Counties, Kansas by B. F. Latta, 1950: 228 p.
- \*93. Geology and ground-water resources of Lane County, Kansas by G. C. Prescott, Jr., 1951: 126 p.
- \*94. Ground-water resources of Pawnee Valley, Kansas by V. C. Fishel, 1952: 144 p.
- 95. Geology and ground-water resources of Lincoln County, Kansas (with a chapter on the chemical quality of ground water by W. H. Durum) by D. W. Berry, 1952: 96 p.

Bulletins--Continued

- \*96, pt. 5. Geology and ground-water resources of the Kansas River valley between Lawrence and Topeka, Kansas by S. N. Davis and W. A. Carlson, 1952: p. 201-276.
98. Geology and ground-water resources of the North Fork Solomon River in Mitchell, Osborne, Smith, and Phillips Counties, Kansas by A. R. Leonard, 1952: 150 p.
100. Geology and ground-water resources of Cheyenne County, Kansas by G. C. Prescott, Jr., 1953: 106 p.
101. Geology and ground-water resources of Jackson County, Kansas by K. L. Walters, 1953: 91 p.
105. Geology and ground-water resources of Sherman County, Kansas by K. L. Walters, 1953: 130 p.
106. Geology and ground-water resources of Marshall County, Kansas by K. L. Walters, 1954: 116 p.
108. Geology and ground-water resources of Wichita and Greeley Counties, Kansas by G. C. Prescott, Jr., J. R. Branch, and W. W. Wilson, 1954: 134 p.
110. Geology and ground-water resources of Graham County, Kansas by G. C. Prescott, Jr., 1955: 98 p.
115. Geology and ground-water resources of Jewell County, Kansas by V. C. Fishel and A. R. Leonard, 1955: 152 p.
116. Geology and ground-water resources of Sheridan County, Kansas by C. K. Bayne, 1956: 94 p.
117. Geology and water-resources of Rawlins County, Kansas by K. L. Walters, 1956: 100 p.
- 119, pt. 1. Progress report on the ground-water hydrology of the Equus-beds area, Kansas by G. J. Stramel, 1956: 59 p.
120. Geology and ground-water resources of Reno County, Kansas by G. J. Stramel, 1956: 130 p.
- \*125. Ground-water levels in observation wells in Kansas, 1956 by V. C. Fishel and B. J. Mason, 1957: 158 p.
126. Ground-water resources of the Ladder Creek area in Kansas (with a section on the chemical quality of water by R. A. Krieger) by Edward Bradley and C. R. Johnson, 1957: 194 p.

Bulletins--Continued

- 127, pt. 5. The hydraulic properties of the Ordovician rocks at Pittsburg, Kansas by G. J. Stramel, 1957: p. 153-178.
129. Geology and ground-water resources of Logan County, Kansas by C. R. Johnson, 1958: 175 p.
- 130, pt. 1. Quaternary geology and ground-water resources of the Kansas River valley between Bonner Springs and Lawrence, Kansas by A. E. Dufford, 1953: 96 p.
- \*131. Ground-water levels in observation wells in Kansas, 1957 by V. C. Fishel and B. J. Mason, 1958: 152 p.
132. Geology and ground-water hydrology of the Ingalls area, Kansas by G. J. Stramel, C. W. Lane, and W. G. Hodson, 1958: 154 p.
136. Geology and ground-water resources of Clay County, Kansas by K. L. Walters and C. K. Bayne, 1959: 106 p.
139. Geology and ground-water resources of Cloud County, Kansas by C. K. Bayne and K. L. Walters, 1959: 144 p.
140. Geology and ground-water resources of Mitchell County, Kansas by W. G. Hodson, 1959: 132 p.
- \*141. Ground-water levels in observation wells in Kansas, 1958 by V. C. Fishel, E. L. Gulley, and E. L. Reavis, 1959: 146 p.
143. Geology and ground-water resources of Harper County, Kansas by C. K. Bayne, 1960: 184 p.
144. Geology and ground-water resources of Kingman County, Kansas by C. W. Lane, 1960: 174 p.
145. Geology and ground-water resources of Gove County, Kansas by W. G. Hodson and K. D. Wahl, 1960: 126 p.
- \*146. Ground-water levels in observation wells in Kansas, 1959 by V. C. Fishel and M. E. Broeker, 1960: 174 p.
- \*148. Geology and ground-water resources of Douglas County, Kansas by H. G. O'Connor, 1960: 200 p.
149. Geology and ground-water resources of southern Ellis County and parts of Trego and Rush Counties, Kansas by A. R. Leonard and D. W. Berry, 1961: 156 p.
151. Geology and ground-water resources of Sumner County, Kansas by K. L. Walters, 1961: 198 p.
- \*153. Ground-water levels in observation wells in Kansas by M. E. Broeker and V. C. Fishel, 1961: 183 p.

## Bulletins--Continued

154. Geology and ground-water resources of Ottawa County, Kansas by L. E. Mack, 1962: 145 p.
158. Geology and ground-water resources of Cowley County, Kansas by C. K. Bayne, 1962: 219 p.
- \*159. Ground-water levels in observation wells in Kansas, 1961 by M. E. Broeker and V. C. Fishel, 1962: 166 p.
161. Geology and ground-water resources of Wallace County, Kansas by W. G. Hodson, 1963: 108 p.
- \*167. Ground-water levels in observation wells in Kansas, 1962 by M. E. Broeker and J. D. Winslow, 1963: 89 p.
168. Geohydrology of Grant and Stanton Counties, Kansas by S. W. Fader, E. D. Gutentag, D. H. Lobmeyer, and W. R. Meyer, 1964: 147 p.
173. Ground-water levels in observation wells in Kansas, 1963 by M. E. Broeker and J. D. Winslow, 1964: 94 p.
174. Geology and ground-water resources of Trego County, Kansas by W. G. Hodson, 1965: 80 p.
176. Geohydrology of Sedgwick County, Kansas by C. W. Lane and D. E. Miller, 1965: 100 p.
181. Geology and ground-water resources of Miami County, Kansas by D. E. Miller, 1966: 66 p.
182. Ground water in Kansas--Bibliography and subject index by R. S. Roberts and W. G. Hodson, 1966: 41 p.
183. Geology and ground-water resources of Neosho County, Kansas by W. L. Jungmann, 1966: 46 p.
184. Ground-water levels in observation wells in Kansas, 1965 by M. E. Broeker and J. D. Winslow, 1966: 92 p.
186. Geology and ground-water resources of Brown County, Kansas by C. K. Bayne and W. H. Schoewe, 1967: 68 p.
- 187, pt. 2. Progress report on the ground-water hydrology of the Equus-beds area, Kansas--1966 by G. J. Stramel, 1966: 27 p.
188. Ground water in the Republican River area, Cloud, Jewell, and Republic Counties, Kansas by S. W. Fader, 1968: 27 p.
193. Geology and ground-water resources of Linn County, Kansas by W. J. SeEVERS, 1969: 62 p.

## Bulletins--Continued

- 194, pt. 1. Computer applications in hydrology in Kansas in Zeller, D. E., ed., Short papers on research in 1968 by C. O. Morgan, J. M. McNellis, and B. H. Lowell, 1969: p. 3-7.
195. Geology and ground-water resources of Allen County, Kansas by D. E. Miller, 1969: 50 p.
196. Geology and ground-water resources of Decatur County, Kansas by W. G. Hodson, 1969: 41 p.
201. Geology and ground-water resources of Ellsworth County, central Kansas by C. K. Bayne, P. C. Franks, and William Ives, Jr., 1971: 84 p.
- 202, pt. 4. Geohydrology of Jefferson County, northeastern Kansas by J. D. Winslow, 1972: 20 p.
203. Geology and ground-water resources of Johnson County, northeastern Kansas by H. G. O'Connor, 1971: 68 p.
- 204, pt. 1. Numerical solution of the three-dimensional heat flow equation by J. C. Halepaska and J. W. Hartman, 1972: p. 11-13.
205. Geology and ground-water resources of Pratt County, south-central Kansas by D. W. Layton and D. W. Berry, 1973: 33 p.
- 206, pt. 2. Ground water in the Kansas River valley, Junction City to Kansas City, Kansas by S. W. Fader, 1974: 12 p.
- 206, pt. 3. Geology and hydrology of Rice County, central Kansas by C. K. Bayne and J. R. Ward, 1974: 17 p.
207. Geology and ground-water resources of Rush County, central Kansas by J. M. McNellis, 1973: 45 p.

## Basic-Data Series, Ground-Water Releases

- \*1. Hydrogeologic data from Cheyenne, Decatur, Rawlins, Sheridan, Sherman, and Thomas Counties, Kansas by K. M. Keene, R. H. Pearl, and M. E. Pabst, 1969: 113 p.
- \*2. Hydrogeologic data from Gove, Logan, and Wallace Counties, Kansas by K. M. Keene and M. E. Pabst, 1971: 76 p.

### Basic-Data Series, Ground-Water Releases

3. Ground-water levels in observation wells in Kansas, 1966-70 by M. E. Broeker and J. M. McNellis, 1973: 373 p.
4. Hydrogeologic data from Greeley, Wichita, Scott, and Lane Counties, Kansas by L. E. Stullken, E. C. Weakly, E. D. Gutentag, and S. E. Slagle 1974: 58 p.
5. Hydrogeologic data from the Great Bend Prairie, south-central Kansas by L. E. Stullken and S. W. Fader 1976: 50 p.
6. Groundwater levels in observation wells in Kansas, 1971-75 by M. E. Broeker, H. J. McIntyre, Jr., and J. M. McNellis, 1977: 526 p.
7. Hydrogeologic data from north-central Kansas by L. E. Stullken, 1980: 46 p.

### Chemical Quality Series

1. Changes in chemical quality of water, Cedar Bluff Irrigation District area, west-central Kansas by R. B. Leonard, 1974: 72 p.
3. Saline water in the Little Arkansas River basin area, south-central Kansas by R. B. Leonard and M. K. Kleinschmidt, 1976: 24 p.
5. Ground water from Lower Cretaceous rocks in Kansas by K. M. Keene and C. K. Bayne, 1977: 18 p.
9. Discharge of saltwater from Permian rocks to major stream-aquifer systems in central Kansas by Tony Gogel, 1981: 60 p.

### Ground-Water Series

1. Geology and ground-water resources of Montgomery County, southeastern Kansas by H. G. O'Connor, 1974: 12 p.
2. Geohydrology of Nemaha County, northeastern Kansas by J. R. Ward, 1974: 19 p.

## Irrigation Series

1. Ground-water resources of Lane and Scott Counties, western Kansas by Stullken, L. E., and Gutentag, E. D., 1976: 37 p.
2. Ground-water resources of Greeley and Wichita Counties, western Kansas by S. E. Slagle and E. C. Weakly, 1976: 21 p.
3. Water-resources reconnaissance of Ness County, west-central Kansas by E. D. Jenkins and M. E. Pabst, 1977: 26 p.
4. Geohydrology of the Great Bend Prairie, south-central Kansas by S. W. Fader and L. E. Stullken, 1978: 19 p.
5. Water in the Dakota Formation, Hodgeman and northern Ford Counties, southwestern Kansas by D. H. Lobmeyer and E. C. Weakly, 1979: 41 p.
6. Hydrology and model of North Fork Solomon River valley, Kirwin Dam to Waconda Lake, north-central Kansas by D. G. Jorgensen and L. E. Stullken, 1981: 34 p.
7. Geohydrology of southwestern Kansas by E. D. Gutentag, D. H. Lobmeyer, and S. E. Slagle, 1981: 73 p.

## Journals

- \*1973 Water-level changes in northwestern Kansas, 1950-73 by M. E. Pabst and E. D. Jenkins, October: 14 p.
- \*1974 Water-level changes in west-central Kansas, 1950-74 by M. E. Pabst and E. D. Jenkins, October: 15 p.
- \*1976a Water-level changes in southwestern Kansas, 1940-75 by M. E. Pabst and E. D. Jenkins, May: 26 p.
- 1976b Water-level changes in northwestern Kansas, 1950-76 by M. E. Pabst and E. D. Jenkins, December: 20 p.
- 1977 Water-level changes in west-central Kansas, 1950-77 by M. E. Pabst and E. D. Gutentag, October: 18 p.
- 1979 Water-level changes in southwestern Kansas, 1940-78 by M. E. Pabst and E. D. Gutentag, May: 29 p.

## Computer Contributions

7. Application of pattern analysis to the classification of oil-field brines by E. E. Angino and C. O. Morgan, in Merriam, D. F., ed., Computer applications in the earth sciences--Colloquium on classification procedures, 1966: p. 53-56.

## Special Distribution Publications

10. Water-level changes in Grant and Stanton Counties, 1939-1964 by J. D. Winslow, C. E. Nuzman, and S. W. Fader, 1964: 11 p.
18. Water-level change in Grant and Stanton Counties, Kansas, 1939-1965 by C. E. Nuzman and W. R. Meyer, 1965: 11 p.
22. Logs of wells and test holes in Sedgwick County, Kansas by C. W. Lane and D. E. Miller, 1965: 175 p.
29. Electronic simulation of ground-water hydrology in the Kansas River valley near Topeka, Kansas by J. D. Winslow and C. E. Nuzman, 1966: 24 p.
33. Notes on the shape of the truncated cone of depression in the vicinity of an infinite well field by S. W. Fader, 1967: 11 p.
37. Water-level changes in Grant and Stanton Counties, Kansas, 1939-1968 by J. D. Winslow, H. E. McGovern, and H. L. Mackey, 1968: 18 p.
- \*39. FORTRAN IV program for synthesis and plotting of water-quality data by L. H. Ropes, C. O. Morgan, and J. M. McNellis, 1969: 59 p.
42. FORTRAN IV programs, KANS, for the conversion of General Land Office locations to latitude and longitude coordinates by C. O. Morgan and J. M. McNellis, 1969: 24 p.
43. Stiff diagrams of water-quality data programmed for the digital computer by C. O. Morgan and J. M. McNellis, 1969: 26 p.
45. Modified Piper diagrams by the digital computer by J. M. McNellis and C. O. Morgan, 1969: 36 p.
47. Application of computer techniques to seepage-salinity surveys in Kansas by R. B. Leonard and C. O. Morgan, 1970: 44 p.
- \*54. Brief descriptions of and examples of output from computer programs developed for use with water data in Kansas by B. H. Lowell, C. O. Morgan, and J. M. McNellis, 1970: 54 p.

## Volumes

- \*11, pt. 3. Ground-water resources of Chase County [Kansas] by H. G. O'Connor, 1951: p. 28-49.
- 12, pt. 3. Ground-water resources of Lyon County [Kansas] by H. G. O'Connor, 1953: p. 35-59.
- 13, pt. 3, .round-water resources of Osage County [Kansas] by H. G. O'Connor, 1955: p. 28-49.
- 14, pt. 3. Ground-water resources of Elk County, Kansas by C. K. Bayne, 1958: p. 37-56.

## M-Series Maps

- \*4. General availability of ground water in Kansas by C. K. Bayne and J. R. Ward, 1967: scale 1:500,000, 1 sheet.
- 5. Saturated thickness and specific yield of Cenozoic deposits in Kansas by C. K. Bayne and J. R. Ward, 1969: scale 1:500,000, 1 sheet.

## Open-File Reports

- 40-10. Memorandum in regard to the possiblility of leakage of the reservoir basin of the proposed Sedgwick County Lake, in south-central Kansas by B. F. Latta, 1940: 11 p.
- 48-7. Preliminary report on the ground-water resources of Labette County, Kansas by G. C. Prescott, Jr., 1948: 15 p.
- 57-4. The ground-water resources of the Prairie Dog Valley area in Kansas by C. R. Johnson, 1956: 171 p.
- 73-9. Geohydrology for urban planning in Johnson County, northeastern Kansas by H. G. O'Connor, 1973: 41 p.
- 77-5. The Theis equation--Evaluation, sensitivity to storage and transmissivity, and automated fit of pump test data by C. D. McElwee, 1977: 38 p.
- ND-27. Geology and hydrology of the Kanopolis Unit in Ellsworth, McPherson, and Saline Counties, Kansas by W. D. Waterman, with a section on the chemical quality of the water by R. A. Krieger, 1952: 186 p.

## Miscellaneous Publications

- \*Frye, J. C., and Fishel, V. C., 1949, Ground water in southwestern Kansas: Kansas Geological Survey Miscellaneous Publication, 24 p.
- Denne, J. E., 1979, Uncovering buried valleys in northeastern Kansas: Kansas Geological Survey, The Journal, v. 1, no. 3, 4 p.

### Kansas Water Office

(formerly Kansas Water Resources Board)

#### Bulletins

4. Development of a balanced stream-gaging program for Kansas by L. W. Furness, 1957: 50 p.
6. A program of fluvial sediment investigations in Kansas by J. C. Mundorff, 1961: 48 p.
7. Fluvial sediment in the lower Kansas River basin--a progress report 1957-60 by J. C. Mundorff and C. H. Scott, 1964: 67 p.
8. A general classification of source areas of fluvial sediment in Kansas by D. L. Collins, 1965: 21 p.
10. Total sediment discharge, a compilation by C. D. Albert, 1969: 8 p.
12. Evaluation of the surface-water data program in Kansas by P. R. Jordan and E. R. Hedman, 1970: 49 p.
17. Natural and artificial ground-water recharge, Wet Walnut Creek, central Kansas by J. B. Gillespie and S. E. Slagle, 1972: 94 p.
19. Fluvial sediment in the Arkansas River basin, Kansas by W. R. Osterkamp, 1977: 91 p.
20. Artificial-recharge experiments near Lakin, western Kansas by J. B. Gillespie, G. D. Hargadine, and M. J. Stough, 1977: 91 p.
21. Effect of channel sediment on width-discharge relations, with emphasis on streams in Kansas by W. R. Osterkamp, 1978: 25 p.
25. Rainfall-runoff relations and expected streamflow in western Kansas by P. R. Jordan, 1982: 42 p.
26. Evaluation of techniques for estimating ground-water withdrawals for irrigation in western Kansas by C. H. Baker, Jr., 1983: 14 p.

## Technical Reports

1. Kansas streamflow characteristics, part 1, Flow duration by L. W. Furness, 1959: 213 p.
2. Kansas streamflow characteristics, part 2, Low-flow frequency by L. W. Furness, 1960: 179 p.
3. Kansas streamflow characteristics, part 3, Flood frequency by D. W. Ellis and G. W. Edelen, Jr., 1960: 221 p.
4. Kansas streamflow characteristics, part 4, Storage requirements to sustain gross reservoir outflow by L. W. Furness, 1962: 177 p.
5. Kansas streamflow characteristics, part 5, Storage requirements to control high flow by L. W. Furness, C. V. Burns, and M. W. Busby, 1964: 169 p.
- 6A. Kansas streamflow characteristics, part 6A, Base flow data, by M. W. Busby and G. W. Armentrout, 1965: 207 p.
- 6B. Kansas streamflow characteristics, part 6B, Base flow distribution, by L. W. Furness, C. V. Burns, and M. W. Busby, 1966: 139 p.
7. Kansas streamflow characteristics, part 7, Annual streamflow summary tables by C. V. Burns, 1967: 18 p.
8. Kansas streamflow characteristics, part 8, In-channel hydraulic geometry of streams in Kansas by C. V. Burns, 1971: 31 p.
9. Kansas streamflow characteristics, part 9, Mean annual runoff as related to channel geometry of selected streams in Kansas by E. R. Hedman and W. M. Kastner, 1972: 25 p.
10. Kansas streamflow characteristics, part 10, Selected streamflow characteristics as related to active-channel geometry of streams in Kansas by E. R. Hedman, W. M. Kastner, and H. R. Hejl, 1974: 21 p.
11. Kansas streamflow characteristics, magnitude and frequency of floods in Kansas, unregulated streams by P. R. Jordan and T. J. Irza, 1975: 34 p.
12. Kansas streamflow characteristics, temperatures of Kansas streams by C. V. Burns, 1975: 220 p.
13. Kansas streamflow characteristics, physical and climatic characteristics along Kansas streams by C. V. Burns, D. V. Maddy, P. R. Jordan, and J. M. McNellis, 1976: 41 p.
- 14A. Statistical summary of streamflow data for Kansas streams in the Arkansas River basin by P. R. Jordan, 1978: 206 p.

## Technical Reports--Continued

- 14B. Statistical summary of streamflow data for Kansas streams in the Missouri River basin by P. R. Jordan, 1979: 334 p.
15. Channel geometry of regulated streams in Kansas as related to mean discharge, 1970-80 by W. R. Osterkamp and E. R. Hedman, 1981: 32 p.
16. Storage requirements to sustain gross reservoir outflow from small basins in Kansas by W. J. Carswell, Jr., 1982: 40 p.
17. Magnitude and frequency of low flows of unregulated streams in Kansas, and estimation of flow-duration curves for ungaged sites by P. R. Jordan, 1983: 55 p.

## Progress Reports

- Gillespie, J. B., Lindskov, K. L., and Slagle, S. E., 1969, Artificial ground-water recharge, Wet Walnut Creek--Progress report number one: Kansas Water Resources Board, 22 p.
- Gillespie, J. B., Green, D. W., and Slagle, S. E., 1970, Artificial ground-water recharge, Wet Walnut Creek, central Kansas--Progress report number two: Kansas Water Resources Board, 28 p.

## Kansas Water News

1958. Sediment studies in Kansas, 1957-1958 by C. R. Johnson: v. 2, no. 1, p. 6-7.
- 1962a. Chemical quality program in Kansas by A. M. Diaz: v. 5, no. 3, p. 3-5.
- 1962b. Quality of water investigation in the Walnut River basin by A. M. Diaz: v. 5, no. 3, p. 6-7
- 1962c. Sediment investigations in Kansas by C. D. Albert, v. 5, no. 4, p. 5-7.
1964. Cooperative water-quality investigations of the Walnut River basin by R. B. Leonard: v. 7, no. 5, p. 5-6.
1965. Cooperative water-quality investigation, South Fork Ninnescah basin by A. M. Diaz: v. 8, no. 3, p. 3-4.
1969. Time of travel study on the Big Blue River by R. B. Leonard: v. 12, no. 3, p. 7-8.
1978. Loss of high flows by seepage from stream channels in Kansas by P. R. Jordan: v. 21, nos. 1 and 2, p. 30-34.

## State Water Plan Studies

Kansas Water Board, 1958-62, State water plan studies, Part A--Preliminary appraisal of Kansas water problems:

- Sec. 1, Marais des Cygnes Unit, June 1958, 189 p.
- Sec. 2, Cimarron Unit, Sept. 1958, 124 p.
- Sec. 3, Kansas Unit, June 1959, 193 p.
- Sec. 4, Lower Arkansas Unit, Jan. 1960, 177 p.
- Sec. 5, Walnut-Verdigris Unit, June 1960, 160 p.
- Sec. 6, Upper Republican Unit, June 1960, 111 p.
- Sec. 7, Neosho Unit, June 1961, 134 p.
- Sec. 8, Solomon-Saline Unit, June 1961, 154 p.
- Sec. 9, Lower Republican Unit, June 1961, 99 p.
- Sec. 10, Missouri Unit, June 1962, 109 p.
- Sec. 11, Upper Arkansas Unit, June 1962, 121 p.
- Sec. 12, Smoky Hill Unit, June 1962, 125 p.

## Scientific Journal Articles

- Albin, D. R., 1975, Water resources alternative study areas, proposed Prairie National Park, Kansas-Oklahoma, in Preliminary environmental assessment alternative study areas, proposed Prairie National Park, Kansas-Oklahoma (appendix D): U.S. Department of Interior, National Park Service, 32 p.
- Culbertson, D. M., 1963, Coordinated water-quality investigations in Kansas: 130th Meeting, Missouri Basin Inter-Agency Commission, 12 p.
- Dabiri, H. E., Green, D. W., and Winslow, J. D., 1970, Digital computer simulation of an aquifer, in Proceedings of Summer Computer Simulation Conference, Denver, Colo., June 10-12, 1970, p. 944-954.
- Dingman, R. J., and Angino, E. E., 1969, Chemical composition of selected Kansas brines as an aid to interpreting change in water chemistry with depth: Chemical Geology, Amsterdam, v. 4, p. 325-339.
- Durum, W. H., 1953, Relationship of the mineral constituents in solution to streamflow, Saline River near Russell, Kansas: Transactions of the American Geophysical Union, v. 34, no. 3, p. 435-442.
- Ehlig, Christine, and Halepaska, J. C., 1976, A numerical study of confined-unconfined aquifers including effects of delayed yield and leakage: American Geophysical Union, Water Resources Research, v. 12, no. 6, p. 1175-1183.
- Fishel, V. C., 1947a, Ground-water resources of Kansas: Transactions of the Kansas Academy of Science, v. 50, no. 2, p. 105-114.
- \_\_\_\_\_, 1947b, Methods used in ground-water investigations in Kansas: Geological Society of America Bulletin, v. 58, no. 12, pt. 2, p. 1273.

Scientific Journal Articles--Continued

- \_\_\_\_ 1956, Long-term trends of ground-water levels in the United States: Transactions of the American Geophysical Union, v. 37, no. 4, p. 429-435.
- Furness, L. W., 1965, Discussion of areal variations of mean annual runoff: American Society of Civil Engineers Proceedings 4304, May, p. 336-341.
- Jordan, P. R., 1977, Streamflow transmission losses in western Kansas: Proceedings, American Society of Civil Engineers, Hydraulics Division Journal, v. 103, no. HY8, p. 905-919.
- Jorgensen, D. G., Gogel, Tony, and Signor, D. C., 1982, Determination of flow in aquifers containing variable-density water, in Ground Water Monitoring Review: Water Well Journal Publishing Co., Worthington, Ohio, v. 2, no. 2, Spring 1982, p. 40-45.
- Kenny, J. F., and McCauley, J. R. 1982, Remote sensing investigations in the coal fields of southeastern Kansas, chap. 29 of Remote sensing for resource management (outgrowth of a national conference by the same name, held October 28-30, 1980, at Kansas City, Mo., 665 p.): Soil Conservation Society of America, Ankeny, Iowa, p. 338-346.
- Leonard, R. B., Signor, D. C., Jorgensen, D. G., and Helgesen, J. O., 1983, Geohydrology and hydrochemistry of the Dakota aquifer, central United States: American Water Resources Association, Water Resources Bulletin, v. 19, no. 6, December 1983, p. 903-911.
- Lohman, S. W., and Frye, J. C., 1940, Geology and ground-water resources of the "Equus beds" area in south-central Kansas: Economic Geology, v. 35, no. 7, p. 839-866.
- McClain, T. J., and Jenkins, E. D., 1971, Digital simulation of the Ogallala aquifer in Sherman County, northwestern Kansas, in Ogallala aquifer symposium: Texas Tech University Special Report 39, p. 72-88.
- McElwee, C. D., and Yukler, M. R., 1978, Sensitivity of groundwater models with respect to variations in transmissivity and storage: American Geophysical Union, Water Resources Research, v. 14, no. 3, p. 451-459.
- McGovern, H. E., 1971, Geology and ground water in the Ogallala Formation and undifferentiated Pleistocene deposits, southwestern Kansas, in Ogallala aquifer symposium: Texas Tech University Special Report 39, p. 15-29.
- McNellis, J. M., Morgan, C. O., and Lowell, B. H., 1968, Digital computer applications that facilitate collection and interpretation of ground-water data in International Association Scientific Hydrology, The use of analog and digital computers in hydrology--a symposium: International Association Scientific Hydrology Publication No. 81 AIHS, v. 2, p. 561-568.

Scientific Journal Articles--Continued

- \_\_\_\_ 1969, Computer-produced tables, maps, and diagrams as tools in the interpretation of brine data from southeastern Kansas (U.S.A.): *Chemical Geology*, Amsterdam, v. 4, p. 303-324.
- Morgan, C. O., Dingman, R. J., and McNellis, J. M., 1966, Digital computer methods for water-quality data: *Ground Water*, Technical Division Journal, National Water Well Association, v. 4, no. 3, July, p. 35-42.
- Morgan, C. O., and McNellis, J. M., 1971, Reduction of lithologic-log data to numbers for use in the digital computer: *Mathematical Geology*, v. 3, no. 1, p. 79-86.
- O'Connor, H. G., 1949, Notes on the ground-water resources of Chase County, Kansas: *Transactions of the Kansas Academy of Science*, v. 52, no. 3, p. 399-405.
- Osterkamp, W. R., 1978a, Bed- and bank-sampling procedure at channel geometry sites: *Proceedings of National Conference on Sampling, Validation, and Quality Control of Environmental Measurements*, Atlanta, Ga., May 31-June 2, 1978.
- \_\_\_\_ 1978b, Gradient, discharge, and particle-size relations of alluvial channels in Kansas, with observations on braiding: *American Journal of Science*, v. 278, November 1978, p. 1253-1268.
- \_\_\_\_ 1979a, Bed- and bank-material sampling procedure at channel-geometry sites: *National Conference on Quality Assurance of Environmental Measurement*, Information Transfer Inc., p. 86-89.
- \_\_\_\_ 1979b, Invariant power functions as applied to fluvial morphology, in Rhodes, D. D., and Williams, G. R., eds., *Adjustments of the fluvial system*: Kendall/Hunt Publishing Co., p. 33-54.
- \_\_\_\_ 1980, Sediment-morphology relations of alluvial channels: *American Society Civil Engineers Proceedings, Watershed Management Symposium*, Boise, Idaho, 12 p.
- Osterkamp, W. R., and Hedman, E. R., 1977, Variation of width and discharge for natural high-gradient stream channels: *American Geophysical Union, Water Resources Research*, v. 13, no. 2, p. 256-258.
- \_\_\_\_ 1979, Discharge estimates in surface-mine areas using channel-geometry techniques: *Proceedings, Symposium on Surface-Mine Hydrology, Sedimentology and Reclamation*, University of Kentucky Bulletin 119, p. 43-49.
- Pearl, R. H., 1968, Quaternary geology of the Morrison quadrangle, Colorado: *Mountain Geologist*, Rocky Mountain Association of Geologists, v. 5, no. 4, p. 197-206.

### Scientific Journal Articles--Continued

- Rosenshein, J. S., 1979, Groundwater in the United States 1975-78: American Geophysical Union, Reviews of Geophysics and Space Physics, v. 17, no. 6, September 1979, p. 1240-1253.
- Spruill, T. B., 1983, Relationship of nitrate concentrations to distance of well screen openings below casing water levels: American Water Resources Association, Water Resources Bulletin, v. 19, no. 6, December 1983, p. 977-981.
- U.S. Geological Survey, 1955, Availability, use, and control of water: Report of the Arkansas-White-Red Basins Inter-Agency Committee, pt. 2, sec. 17, 122 p.
- Williams, C. C., and Lohman, S. W., 1947, Methods used in estimating the ground water supply in the Wichita, Kansas, well-field area: Transactions of the American Geophysical Union, v. 28, no. 1, p. 120-131.

#### LISTING BY YEAR OF PUBLICATION

##### 1886-1899

- \*Davis, A. P., 1897, Report of progress of stream measurements for the calendar year 1896: U.S. Geological Survey 18th Annual Report, Part IV, p. 1-418.
- \*Gannett, Henry, 1898, A gazetteer of Kansas: U.S. Geological Survey Bulletin 154, 246 p.
- \*Haworth, Erasmus, 1897, Underground waters of southwestern Kansas: U.S. Geological Survey Water-Supply Paper 6, 65 p.
- \*Hay, Robert, 1890, A geological reconnaissance in southwestern Kansas: U.S. Geological Survey Bulletin 57, 49 p.
- \* \_\_\_\_\_ 1895, Water resources of a portion of the Great Plains: U.S. Geological Survey 16th Annual Report, Part II, p. 535-588.
- \*Newell, F. H., 1895, Report of progress of the Division of Hydrography for 1893 and 1894: U.S. Geological Survey Bulletin 131, 126 p.
- \* \_\_\_\_\_ 1898, Report of progress of stream measurements for the calendar year 1897: U.S. Geological Survey 19th Annual Report, Part IV, p. 1-632.
- \* \_\_\_\_\_ 1899, Report of progress on stream measurements for the calendar year 1898: U.S. Geological Survey 20th Annual Report, Part IV, p. 1-562.
- \*Peale, A. C., 1886, Lists and analyses of the mineral springs of the United States (a preliminary study): U.S. Geological Survey Bulletin 32, 235 p.
- \* \_\_\_\_\_ 1894, Natural mineral waters of the United States: U.S. Geological Survey 14th Annual Report, Part II-b, p. 49-88.

1900-19

- \*Darton, N. H., 1905a, Preliminary lists of deep borings in the United States: U.S. Geological Survey Water-Supply Paper 149, 175 p.
- \* \_\_\_\_\_ 1905b, Preliminary report on the geology and underground water resources of the central Great Plains: U.S. Geological Survey Professional Paper 32, 433 p.
- \*Hinds, Henry, and Greene, F. C., 1917, Description of the Leavenworth and Smithville quadrangles, Missouri-Kansas: U.S. Geological Survey Geologic Atlas, Folio 206, 13 p., 10 pl., 10 figs.
- \*Johnson, W. D., 1901, The High Plains and their utilization: U.S. Geological Survey 21st Annual Report, Part IV-c, p. 743-768.
- \* \_\_\_\_\_ 1902, The High Plains and their utilization (conclusion): U.S. Geological Survey 22nd Annual Report, Part IV-c, p. 671-690.
- Meinzer, O. E., 1915, Preliminary report on ground water for irrigation in the vicinity of Wichita, Kansas: U.S. Geological Survey Water-Supply Paper 345-A, 9 p.
- \*Murphy, E. C., 1904, Destructive floods in the United States in 1903, contains Kansas floods and hydrographic data: U.S. Geological Survey Water-Supply Paper 96, p. 21-78.
- \* \_\_\_\_\_ 1905, Destructive floods in the United States in 1904, contains Kansas floods: U.S. Geological Survey Water-Supply Paper 147, p. 59-113.
- \*Newell, F. H., 1900, Report of progress of stream measurements for the calendar year 1899: U.S. Geological Survey 21st Annual Report, p. 9-488.
- \* \_\_\_\_\_ 1901, Report of progress of stream measurements for the calendar year 1900: U.S. Geological Survey 22nd Annual Report, p. 9-506.
- \*Parker, H. N., 1911, Quality of the water supplies of Kansas, with a preliminary report on stream pollution by mine waters in southeastern Kansas by E. H. S. Bailey: U.S. Geological Survey Water-Supply Paper 273, 375 p.
- \*Prosser, C. S., and Beede, J. W., 1904, Description of Cottonwood Falls quadrangle, Kansas: U.S. Geological Survey Geologic Atlas, Folio 109, 6 p., 2 pl.
- \*Schrader, F. C., 1908, Description of the Independence quadrangle, Kansas: U.S. Geological Survey Geologic Atlas, Folio 159, 7 p., 3 pl.
- \*Schrader, F. C., and Haworth, Erasmus, 1906, Economic geology of the Independence quadrangle, Kansas: U.S. Geological Survey Bulletin 296, 74 p.

1900-19--Continued

- \*Slichter, C. S., 1902, The motions of underground waters: U.S. Geological Survey Water-Supply Paper 67, 106 p.
- \*       1906, The underflow in the Arkansas Valley in western Kansas: U.S. Geological Survey Water-Supply Paper 153, 90 p.
- \*Smith, W. S. T., 1905, Water resources of the Joplin district, Missouri-Kansas: U.S. Geological Survey Water-Supply Paper 145, p. 74-83.
- \*Smith, W. S. T., and Siebenthal, C. E., 1907, Description of the Joplin district, Missouri-Kansas: U.S. Geological Survey Geologic Atlas, Folio 148, 20 p., 27 figs.
- \*Wolff, H. C., 1911, The utilization of the underflow near St. Francis, Kansas: U.S. Geological Survey Water-Supply Paper 258, p. 98-119.

1920-39

- \*Clarke, F. W., 1924, The composition of the river and lake waters of the United States: U.S. Geological Survey Professional Paper 135, 133 p.
- \*Darton, N. H., 1920, Description of the Syracuse and Lakin quadrangles, Kansas: U.S. Geological Survey Geologic Atlas, Folio 212, 10 p., 6 pl., 7 figs.
- \*Follansbee, Robert, and Spiegel, J. B., 1937, Flood on Republican and Kansas Rivers, May and June 1935: U.S. Geological Survey Water-Supply Paper 796-B, p. 21-52.
- \*Theis, C. V., Burleigh, H. P., and Waite, H. A., 1935, Ground water in the southern High Plains: U.S. Department of the Interior Memorandum for the Press, October 1935, 4 p.

1940

- \*Frye, J. C., 1940, A preliminary report on the water supply of the Meade artesian basin, Meade County, Kansas: Kansas Geological Survey Bulletin 35, 39 p.
- Latta, B. F., 1940, Memorandum in regard to the possibility of leakage of the reservoir basin of the proposed Sedgwick County Lake, in south-central Kansas: Kansas Geological Survey Open-File Report 40-10, 11 p.
- Lohman, S. W., and Frye, J. C., 1940, Geology and ground-water resources of the "Equus beds" area in south-central Kansas: Economic Geology, v. 35, no. 7, p. 839-866.

### 1940--Continued

- Lohman, S. W., and Mitchell, Alexander, 1940, Memorandum in regard to prospecting for a softer water supply for the Kansas State Penitentiary at Lansing, Kansas: U.S. Geological Survey open-file report, 17 p.
- \*Moore, R. C., 1940, Ground-water resources of Kansas, with chapters by S. W. Lohman, J. C. Frye, H. A. Waite, T. G. McLaughlin, and B. F. Latta: Kansas Geological Survey Bulletin 27, 112 p.

### 1941

- \*Frye, J. C., 1941, Reconnaissance of ground-water resources of Atchison County, Kansas: Kansas Geological Survey Bulletin 38, pt. 9, p. 237-260.
- \*Latta, B. F., 1941, Geology and ground-water resources of Stanton County, Kansas: Kansas Geological Survey Bulletin 37, 119 p.
- \*Lohman, S. W., 1941, Ground-water conditions in the vicinity of Lawrence, Kansas: Kansas Geological Survey Bulletin 38, pt. 2, 64 p.

### 1942

- \*Frye, J. C. 1942, Geology and ground-water resources of Meade County, Kansas: Kansas Geological Survey Bulletin 45, 152 p.
- \*Lohman, S. W., 1942, Ground-water supplies available for national defense industries in south-central Kansas: Kansas Geological Survey Bulletin 41, pt. 1, 19 p.
- \*Lohman, S. W., Frye, J. C., Waite, H. A., Fishel, V. C., McLaughlin, T. G., Latta, B. F., and Abernathy, G. E., 1942, Ground-water supplies available in Kansas for national defense industries: Kansas Geological Survey Bulletin 41, pt. 2, p. 21-28.
- \*McLaughlin, T. G., 1942, Geology and ground-water resources of Morton County, Kansas: Kansas Geological Survey Bulletin 40, 126 p.
- \*Waite, H. A., 1942, Geology and ground-water resources of Ford County, Kansas: Kansas Geological Survey Bulletin 43, 250 p.

### 1943

- \*Frye, J. C., and Brazil, J. J., 1943, Ground-water in the oil-field areas of Ellis and Russell Counties, Kansas: Kansas Geological Survey Bulletin 50, 104 p.
- \*McLaughlin, T. G., 1943, Geology and ground-water resources of Hamilton and Kearny Counties, Kansas: Kansas Geological Survey Bulletin 49, 220 p.

1944

- \*Latta, B. F., 1944, Geology and ground-water resources of Finney and Gray Counties, Kansas: Kansas Geological Survey Bulletin 55, 272 p.
- \*Williams, C. C., 1944, Ground-water conditions in the Neosho River valley in the vicinity of Parsons, Kansas: Kansas Geological Survey Bulletin 52, pt. 2, p. 29-80.

1945

- \*Frye, J. C. 1945, Geology and ground-water resources of Thomas County, Kansas: Kansas Geological Survey Bulletin 59, 110 p.

1946

- \*McLaughlin, T. G., 1946, Geology and ground-water resources of Grant, Haskell, and Stevens Counties, Kansas: Kansas Geological Survey Bulletin 61, 221 p.
- \*Williams, C. C., 1946, Ground-water conditions in Arkansas River valley in the vicinity of Hutchinson, Kansas: Kansas Geological Survey Bulletin 64, pt. 5, p. 145-216.
- \*Williams, C. C., and Bayne, C. K., 1946, Ground-water conditions in Elm Creek valley, Barber County, Kansas: Kansas Geological Survey Bulletin 64, pt. 3, p. 77-124.

1947

- \*Byrne, F. E., and McLaughlin, T. G., 1947, Geology and ground-water resources of Seward County, Kansas: Kansas Geological Survey Bulletin 69, 140 p.
- Fishel, V. C., 1947a, Ground-water resources of Kansas: Transactions of the Kansas Academy of Science, v. 50, no. 2, p. 105-114.
- \_\_\_\_\_, 1947b, Methods used in ground-water investigations in Kansas: Geological Society of America Bulletin, v. 58, no. 12, pt. 2, p. 1273.
- \*Waite, H. A. 1947, Geology and ground-water resources of Scott County, Kansas: Kansas Geological Survey Bulletin 66, 216 p.
- Williams, C. C., and Lohman, S. W., 1947, Methods used in estimating the ground water supply in the Wichita, Kansas well-field area: Transactions of the American Geophysical Union, v. 28, no. 1, p. 120-131.

1948

- \*Fishel, V. C., 1948a, Ground-water resources of the Kansas City, Kansas, area: Kansas Geological Survey Bulletin 71, 109 p.
- \*\_\_\_\_\_ 1948b, Geology and ground-water resources of Republic County and northern Cloud County, Kansas: Kansas Geological Survey Bulletin 73, 194 p.
- \*Latta, B. F., 1948a, Geology and ground-water resources of Kiowa County, Kansas: Kansas Geological Survey Bulletin 65, 151 p.
- \*\_\_\_\_\_ 1948b, Ground-water supplies at Hays, Victoria, Walker, Gorham, and Russell, Kansas, with special reference to future needs: Kansas Geological Survey Bulletin 76, pt. 6, p. 121-196.
- Prescott, G. C., Jr., 1948, Preliminary report on the ground-water resources of Labette County, Kansas: Kansas Geological Survey Open-File Report 48-7, 15 p.
- \*Williams, C. C., 1948, Contamination of deep water wells in southeastern Kansas: Kansas Geological Survey Bulletin 76, pt. 2, p. 13-28.

1949

- \*Frye, J. C., and Fishel, V. C., 1949, Ground water in southwestern Kansas: Kansas Geological Survey Miscellaneous Publication, 24 p.
- \*Frye, J. C., and Leonard, A. R., 1949, Geology and ground-water resources of Norton County and northwestern Phillips County, Kansas: Kansas Geological Survey Bulletin 81, 144 p.
- \*Latta, B. F., 1949, Ground-water conditions in the Smoky Hill Valley in Saline, Dickinson, and Geary Counties, Kansas: Kansas Geological Survey Bulletin 84, 152 p.
- \*McLaughlin, T. G. 1949, Geology and ground-water resources of Pawnee and Edwards Counties, Kansas: Kansas Geological Survey Bulletin 80, 189 p.
- O'Connor, H. G., 1949, Notes on the ground-water resources of Chase County, Kansas: Transactions of the Kansas Academy of Science, v. 52, no. 3, p. 399-405.
- \*Williams, C. C., and Lohman, S. W., 1949, Geology and ground-water resources of a part of south-central Kansas, with specific references to the Wichita municipal water supply: Kansas Geological Survey Bulletin 79, 455 p.

## 1950

- \*Fent, O. S., 1950, Geology and ground-water resources of Rice County, Kansas: Kansas Geological Survey Bulletin 85, 142 p.
- \*Frye, J. C., and Walters, K. L., 1950, Subsurface reconnaissance of glacial deposits in northeastern Kansas: Kansas Geological Survey Bulletin 86, pt. 6, p. 141-158.
- \*Latta, B. F., 1950, Geology and ground-water resources of Barton and Stafford Counties, Kansas: Kansas Geological Survey Bulletin 88, 228 p.

## 1951

- Durum, W. H., 1951, Chemical quality of the surface waters in the Saline River basin, Kansas, a progress report: U.S. Geological Survey open-file report, 54 p.
- \*O'Connor, H. G., 1951, Ground-water resources of Chase County [Kansas]: Kansas Geological Survey, v. 11, pt. 3, p. 28-49.
- \*Prescott, G. C., Jr., 1951, Geology and ground-water resources of Lane County, Kansas: Kansas Geological Survey Bulletin 93, 126 p.

## 1952

- Berry, D. W., 1952, Geology and ground-water resources of Lincoln County, Kansas, with a chapter on the chemical quality of ground water by W. H. Durum: Kansas Geological Survey Bulletin 95, 96 p.
- \*Davis, S. N., and Carlson, W. A., 1952, Geology and ground-water resources of the Kansas River valley between Lawrence and Topeka, Kansas: Kansas Geological Survey Bulletin 96, pt. 5, p. 201-276.
- \*Fishel, V. C., 1952, Ground-water resources of Pawnee Valley, Kansas: Kansas Geological Survey Bulletin 94, 144 p.
- Leonard, A. R., 1952, Geology and ground-water resources of the North Fork Solomon River in Mitchell, Osborne, Smith, and Phillips Counties, Kansas: Kansas Geological Survey Bulletin 98, 150 p.
- U.S. Geological Survey, 1952, Kansas-Missouri floods of July 1951, with a section on Fluctuations of ground-water levels by V. C. Fishel: U.S. Geological Survey Water-Supply Paper 1139, 239 p.
- Waterman, W. D., 1952, Geology and hydrology of the Kanopolis Unit in Ellsworth, McPherson, and Saline Counties, Kansas, with a section on the chemical quality of the water by R. A. Krieger: Kansas Geological Survey Open-File Report ND-27, 186 p.

1953

- Dufford, A. E., 1953, Quaternary geology and ground-water resources of the Kansas River valley between Bonner Springs and Lawrence, Kansas: Kansas Geological Survey Bulletin 130, pt. 1, 96 p.
- Durum, W. H., 1953, Relationship of the mineral constituents in solution to streamflow, Saline River near Russell, Kansas: Transactions of the American Geophysical Union, v. 34, no. 3, p. 435-442.
- \*Fishel, V. C., Searcy, J. K., and Rainwater, F. H., 1953, Water resources of the Kansas City area, Missouri and Kansas: U.S. Geological Survey Circular 273, 52 p.
- Lohman, S. W., and Burtis, V. M., 1953, Areas of principal ground-water investigations in the Arkansas, White, and Red River basins: U.S. Geological Survey Hydrologic Investigations Atlas HA-2, scale 1:2,500,000, 1 sheet
- Lohman, S. W., Burtis, V. M., and others, 1953, General availability of ground water and depths to water level in the Arkansas, White, and Red River basins: U.S. Geological Survey Hydrologic Investigations Atlas HA-3, scale 1:2,500,000, 1 sheet.
- O'Connor, H. G., 1953, Ground-water resources of Lyon County [Kansas]: Kansas Geological Survey, v. 12, pt. 3, p. 35-59.
- Prescott, G. C., Jr., 1953a, Geology and ground-water resources of Cheyenne County, Kansas: Kansas Geological Survey Bulletin 100, 106 p.
- \_\_\_\_\_ 1953b, Geology and ground-water resources of Sherman County, Kansas: Kansas Geological Survey Bulletin 105, 130 p.
- Walters, K. L., 1953, Geology and ground-water resources of Jackson County, Kansas: Kansas Geological Survey Bulletin 101, 91 p.

1954

- Prescott, G. C., Jr., Branch, J. R., and Wilson, W. W., 1954, Geology and ground-water resources of Wichita and Greeley Counties, Kansas: Kansas Geological Survey Bulletin 108, 134 p.
- Walters, K. L., 1954, Geology and ground-water resources of Marshall County, Kansas: Kansas Geological Survey Bulletin 106, 116 p.

1955

- Fishel, V. C., and Leonard, A. R., 1955, Geology and ground-water resources of Jewell County, Kansas: Kansas Geological Survey Bulletin 115, 152 p.
- O'Connor, H. G., 1955, Ground-water resources of Osage County [Kansas]: Kansas Geological Survey, v. 13, pt. 3, p. 28-49.

### 1955--Continued

- Prescott, G. C., Jr., 1955, Geology and ground-water resources of Graham County, Kansas: Kansas Geological Survey Bulletin 110, 98 p.
- U.S. Geological Survey, 1955, Availability, use, and control of water: Report of the Arkansas-White-Red Basins Inter-Agency Committee, pt. 2, sec. 17, 122 p.

### 1956

- Bayne, C. K., 1956a, Geology and ground-water resources of Sheridan County, Kansas: Kansas Geological Survey Bulletin 116, 94 p.
- \_\_\_\_\_, 1956b, Geology and ground-water resources of Reno County, Kansas: Kansas Geological Survey Bulletin 120, 130 p.
- Fishel, V. C., 1956, Long-term trends of ground-water levels in the United States: Transactions of the American Geophysical Union, v. 37, no. 4, p. 429-435.
- Johnson, C. R., 1956, The ground-water resources of the Prairie Dog Valley area in Kansas: Kansas Geological Survey Open-File Report 56-4, 171 p.
- Stramel, G. J., 1956, Progress report on the ground-water hydrology of the Equus-beds area, Kansas: Kansas Geological Survey Bulletin 119, pt. 1, 59 p.
- Walters, K. L., 1956, Geology and ground-water resources of Rawlins County, Kansas: Kansas Geological Survey Bulletin 117, 100 p.

### 1957

- Bradley, Edward, and Johnson, C. R., 1957, Ground-water resources of the Ladder Creek area in Kansas, with a section of the chemical quality of water by R. A. Krieger: Kansas Geological Survey Bulletin 126, 194 p.
- \*Fishel, V. C., and Mason, B. J., 1957, Ground-water levels in observation wells in Kansas, 1956: Kansas Geological Survey Bulletin 125, 158 p.
- Furness, L. W., 1957, Development of a balanced stream-gaging program for Kansas: Kansas Water Resources Bulletin No. 4, 50 p.
- Leeson, E. R., 1957, History of natural flow, Kansas River: U.S. Geological Survey open-file report, 5 p.
- Stramel, G. J., 1957, The hydraulic properties of the Ordovician rocks at Pittsburg, Kansas: Kansas Geological Survey Bulletin 127, pt. 5, p. 153-178.

## 1958

- Bayne, C. K., 1958, Ground-water resources of Elk County, Kansas: Kansas Geological Survey, v. 14, pt. 3, p. 37-56.
- \*Fishel, V. C., and Mason, B. J., 1958, Ground-water levels in observation wells in Kansas, 1957: Kansas Geological Survey Bulletin 131, 152 p.
- Johnson, C. R., 1958, Geology and ground-water resources of Logan County, Kansas: Kansas Geological Survey Bulletin 129, 175 p.
- Mundorff, J. C., 1958, Sediment studies in Kansas, 1957-1958: Kansas Water News, v. 2, no. 1, p. 6-7.
- Stramel, G. J., Lane, C. W., and Hodson, W. G., 1958, Geology and ground-water hydrology of the Ingalls area, Kansas: Kansas Geological Survey Bulletin 132, 154 p.
- U.S. Geological Survey, 1958, Pumping tests at the Goodyear Tire and Rubber Company, Topeka, Kansas: U.S. Geological Survey open-file report, 12 p.

## 1959

- Bayne, C. K., and Walters, K. L., 1959, Geology and ground-water resources of Cloud County, Kansas: Kansas Geological Survey Bulletin 139, 144 p.
- \*Fishel, V. C., Gulley, E. L., and Reavis, E. L., 1959, Ground-water levels in observation wells in Kansas, 1958: Kansas Geological Survey Bulletin 141, 146 p.
- Furness, L. W., 1959, Kansas streamflow characteristics, part 1, Flow duration: Kansas Water Resources Board Technical Report No. 1, 213 p.
- Hodson, W. G., 1959, Geology and ground-water resources of Mitchell County, Kansas: Kansas Geological Survey Bulletin 140, 132 p.
- U.S. Geological Survey, 1959, Floods of the Kansas River, Topeka, Kansas in 1935 and 1951: U.S. Geological Survey Hydrologic Investigations Atlas HA-14, scale 1:24,000, 1 sheet.
- Walters, K. L., and Bayne, C. K., 1959, Geology and ground-water resources of Clay County, Kansas: Kansas Geological Survey Bulletin 136, 106 p.

## 1960

- Bayne, C. K., 1960, Geology and ground-water resources of Harper County, Kansas: Kansas Geological Survey Bulletin 143, 184 p.
- Ellis, D. W., and Edelen, G. W., Jr., 1960, Kansas streamflow characteristics, part 3, Flood frequency: Kansas Water Resources Board Technical Report No. 3, 221 p.

### 1960--Continued

- \*Fishel, V. C., and Broeker, M. E., 1960, Ground-water levels in observation wells in Kansas, 1959: Kansas Geological Survey Bulletin 146, 174 p.
- Furness, L. W., 1960, Kansas streamflow characteristics, part 2, Low-flow frequency: Kansas Water Resources Board Technical Report No. 2, 179 p.
- Hodson, W. G., and Wahl, K. D., 1960, Geology and ground-water resources of Gove County, Kansas: Kansas Geological Survey Bulletin 145, 126 p.
- Landis, E. R., 1960, Uranium content of ground and surface waters in a part of the central Great Plains: U.S. Geological Survey Bulletin 1087-G, p. 223-258.
- Lane, C. W., 1960, Geology and ground-water resources of Kingman County, Kansas: Kansas Geological Survey Bulletin 144, 174 p.
- \*O'Connor, H. G., 1960, Geology and ground-water resources of Douglas County, Kansas: Kansas Geological Survey Bulletin 148, 200 p.

### 1961

- \*Broeker, M. E., and Fishel, V. C., 1961, Ground-water levels in observation wells in Kansas, 1960: Kansas Geological Survey Bulletin 153, 183 p.
- Leonard, A. R., and Berry, D. W., 1961, Geology and ground-water resources of southern Ellis County and parts of Trego and Rush Counties, Kansas: Kansas Geological Survey Bulletin 149, 156 p.
- Mundorff, J. C., 1961, A program of fluvial sediment investigations in Kansas: Kansas Water Resources Board Bulletin No. 6, 48 p.
- Schumm, S. A., and Lichty, R. W., 1961, Recent flood-plain formation along the Cimarron River in Kansas: U.S. Geological Survey Professional Paper 424-B, p. B112.
- Walters, K. L., 1961, Geology and ground-water resources of Sumner County, Kansas: Kansas Geological Survey Bulletin 151, 198 p.
- Ward, P. E., and Leonard, A. R., 1961, Hypothetical circulation of ground water around salt springs in western Oklahoma, Texas, and Kansas: U.S. Geological Survey Professional Paper 424-D, p. D150.

### 1962

- Albert, C. D., 1962, Sediment investigations in Kansas: Kansas Water News, v. 5, no. 4, p. 5-7.
- Bayne, C. K., 1962, Geology and ground-water resources of Cowley County, Kansas: Kansas Geological Survey Bulletin 158, 219 p.

1962--Continued

- Bedinger, M. S., and Tanaka, H. H., 1962, Effect of the Kirwin reservoir, Kansas, on ground-water levels: U.S. Geological Survey open-file report, 11 p.
- \*Broeker, M. E., and Fishel, V. C., 1962, Ground-water levels in observation wells in Kansas, 1961: Kansas Geological Survey Bulletin 159, 166 p.
- Diaz, A. M., 1962a, Chemical quality program in Kansas: Kansas Water News, v. 5, no. 3, p. 3-5.
- \_\_\_\_\_, 1962b, Quality of water investigation in the Walnut River basin: Kansas Water News, v. 5, no. 3, p. 6-7.
- Furness, L. W., 1962, Kansas streamflow characteristics, part 4, Storage requirements to sustain gross reservoir outflow: Kansas Water Resources Board Technical Report No. 4, 177 p.
- Kansas Water Board, 1958-62, State water plan studies, Part A--Preliminary appraisal of Kansas water problems:
- Sec. 1, Marais des Cygnes Unit, June 1958, 189 p.
  - Sec. 2, Cimarron Unit, Sept. 1958, 124 p.
  - Sec. 3, Kansas Unit, June 1959, 193 p.
  - Sec. 4, Lower Arkansas Unit, Jan. 1960, 177 p.
  - Sec. 5, Walnut-Verdigris Unit, June 1960, 160 p.
  - Sec. 6, Upper Republican Unit, June 1960, 111 p.
  - Sec. 7, Neosho Unit, June 1961, 134 p.
  - Sec. 8, Solomon-Saline Unit, June 1961, 154 p.
  - Sec. 9, Lower Republican Unit, June 1961, 99 p.
  - Sec. 10, Missouri Unit, June 1962, 109 p.
  - Sec. 11, Upper Arkansas Unit, June 1962, 121 p.
  - Sec. 12, Smoky Hill Unit, June 1962, 125 p.
- Lane, C. W., Reavis, E. L., and Stramel, G. J., 1962, Emergency water supplies in the Wichita area, Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-58, scale 1:250,000, 1 sheet, 36 p.
- Mack, L. E., 1962, Geology and ground-water resources of Ottawa County, Kansas: Kansas Geological Survey Bulletin 154, 145 p.
- \*Meyers, J. S., 1962, Evaporation from the 17 Western States, with a section on evaporation rates by T. J. Nordenson: U.S. Geological Survey Professional Paper 272-D, p. 71-100.
- \*Thomas, H. E., 1962, The meteorologic phenomenon of drought in the Southwest: U.S. Geological Survey Professional Paper 372-A, p. A1-A43.
- U.S. Geological Survey, 1962, Surface water records of Kansas, 1961: U.S. Geological Survey Water-Data Report, 165 p.

## 1963

- \*Broeker, M. E., and Winslow, J. D. 1963, Ground-water levels in observation wells in Kansas, 1962: Kansas Geological Survey Bulletin 167, 89 p.
- \*Busby, M. W., 1963, Yearly variations in runoff for the conterminous United States, 1931-60: U.S. Geological Survey Water-Supply Paper 1669-S, p. S1-S49.
- Culbertson, D. M., 1963, Coordinated water-quality investigations in Kansas: 130th Meeting, Missouri Basin Inter-Agency Commission, 12 p.
- Ellis, D. W., and others, 1963, Floods at Wichita, Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-63, scale 1:24,000, 5 sheets.
- \*Fishel, V. C., 1963, Kansas in McGuinness, C. L., The role of ground water in the national water situation: U.S. Geological Survey Water-Supply Paper 1800, 1121 p.
- Hodson, W. G., 1963, Geology and ground-water resources of Wallace County, Kansas: Kansas Geological Survey Bulletin 161, 108 p.
- \*Meyer, W. R., 1963, Use of a neutron moisture probe to determine the storage coefficient of an unconfined aquifer: U.S. Geological Survey Professional Paper 450-E, p. E174-E176.
- Schumm, S. A., and Lichty, R. W., 1963, Channel widening and flood-plain construction along the Cimarron River in southwestern Kansas: U.S. Geological Survey Professional Paper 352-D, p. 71-88.
- U.S. Geological Survey, 1963, Surface water records of Kansas, 1962: U.S. Geological Survey Water-Data Report, 179 p.

## 1964

- Albert, C. D., 1964, Brine in surface water of the Little Arkansas River basin, Kansas: Kansas State Department of Health Bulletin No. 1-5, 15 p.
- \*Broeker, M. E., and Winslow, J. D., 1964, Ground-water levels in observation wells in Kansas, 1963: Kansas Geological Survey Bulletin 173, 94 p.
- \*Busby, M. W., 1964, Relation of annual runoff to meteorological factors in Geological Survey Research, 1964, Chapter C: U.S. Geological Survey Professional Paper 501-C, p. C188-C189.
- Fader, S. W., Gutentag, E. D., Lobmeyer, D. H., and Meyer, W. R., 1964, Geohydrology of Grant and Stanton Counties, Kansas: Kansas Geological Survey Bulletin 168, 147 p.
- Furness, L. W., Burns, C. V., and Busby, M. W., 1964, Kansas streamflow characteristics, part 5, Storage requirements to control high flow: Kansas Water Resources Board Technical Report No. 5, 169 p.

1964--Continued

- \*Jordan, P. R., Jones, B. F., and Petri, L. R., 1964, Chemical quality of surface waters and sedimentation in the Saline River basin, Kansas: U.S. Geological Survey Water-Supply Paper 1651, 90 p.
- Leonard, R. B., 1964a, Results of four chemical-quality surveys of the Walnut River basin, Kansas (December 1961 to October 1963): Kansas State Department of Health Bulletin No. 1-3, 38 p.
- \* \_\_\_\_\_ 1964b, A method for evaluating oil-field-brine pollution of the Walnut River in Kansas in Geological Survey Research, 1964, Chapter B: U.S. Geological Survey Professional Paper 501-B, p. B173-B176.
- \_\_\_\_\_ 1964c, Cooperative water-quality investigations of the Walnut River basin: Kansas Water News, v. 7, no. 5, p. 5-6.
- Leonard, R. B., and Shah, K. L., 1964, The relation of the chemical quality of the Whitewater River at Towanda to that of the Walnut River at Winfield, Kansas during the 1963 water year: Kansas State Department of Health Bulletin No. 1-2, 18 p.
- Mayes, J. L., and Culbertson, Don, 1964, Chemical quality of surface waters in Kansas, 1962 water year: Kansas State Department of Health Bulletin No. 1-4, 61 p.
- Mundorff, J. C., and Scott, C. H., 1964, Fluvial sediment in the lower Kansas River basin--a progress report 1957-60: Kansas Water Resources Board Bulletin No. 7, 67 p.
- \*Petri, L. R., Lane, C. W., and Furness, L. W., 1964, Water resources of the Wichita area, Kansas: U.S. Geological Survey Water-Supply Paper 1499-I, 69 p.
- U.S. Geological Survey, 1964a, Surface water records of Kansas, 1963: U.S. Geological Survey Water-Data Report, 191 p.
- \_\_\_\_\_ 1964b, Status of water resources investigations in Kansas: U.S. Geological Survey folder.
- Winslow, J. D., Nuzman, C. E., and Fader, S. W., 1964, Water-level changes in Grant and Stanton Counties, 1939-1964: Kansas Geological Survey Special Distribution Publication 10, 11 p.

1965

- Busby, M. W., and Armentrout, G. W., 1965, Kansas streamflow characteristics, part 6A, Base flow data: Kansas Water Resources Board Technical Report No. 6A, 207 p.

## 1965--Continued

- Collins, D. L., 1965, A general classification of source areas of fluvial sediment in Kansas: Kansas Water Resources Board Bulletin No. 8, 21 p.
- Diaz, A. M., 1965, Cooperative water-quality investigation, South Fork Ninnescah basin: Kansas Water News, v. 8, no. 3, p. 3-4.
- Furness, L. W., 1965a, Small area flood volume study, Rock Creek basin, Meriden, Kans.--progress report, July 1963 to Feb. 1965: U.S. Geological Survey open-file report, 42 p.
- \_\_\_\_\_, 1965b, Discussion of areal variations of mean annual runoff: American Society Civil Engineers Proceedings 4304, May, p. 336-341.
- Hodson, W. G., 1965, Geology and ground-water resources of Trego County, Kansas: Kansas Geological Survey Bulletin 174, 80 p.
- Lane, C. W., and Miller, D. E., 1965a, Logs of wells and test holes in Sedgwick County, Kansas: Kansas Geological Survey Special Distribution Publication 22, 175 p.
- \_\_\_\_\_, 1965b, Geohydrology of Sedgwick County, Kansas: Kansas Geological Survey Bulletin 176, 100 p.
- Mayes, J. L., and Diaz, A. M., 1965, Chemical quality of surface waters in Kansas, 1963 water year: Kansas State Department of Health Bulletin 1-8, 67 p.
- Nuzman, C. E., and Meyer, W. R., 1965, Water-level change in Grant and Stanton Counties, Kansas, 1939-1965: Kansas Geological Survey Special Distribution Publication 18, 11 p.
- U.S. Geological Survey, 1965, Surface water records of Kansas, 1964: U.S. Geological Survey Water-Data Report, 215 p.

## 1966

- \*Albert, C. D., and Stramel, G. J., 1966, Fluvial sediment in the Little Arkansas River basin, Kansas: U.S. Geological Survey Water-Supply Paper 1798-B, p. B1-B30.
- Angino, E. E., and Morgan, C. O., 1966, Application of pattern analysis to the classification of oil-field brines, in Merriam, D. F., ed., Computer applications in the earth sciences: Colloquium on classification procedures: Kansas Geological Survey Computer Contributions 7, p. 53-56.
- Broeker, M. E., and Winslow, J. D., 1966, Ground-water levels in observation wells in Kansas, 1965: Kansas Geological Survey Bulletin 184, 92 p.

1966--Continued

- Busby, M. W., 1966, Annual runoff in the conterminous United States: U.S. Geological Survey Hydrologic Investigations Atlas HA-212, scale 1:7,500,000, 1 sheet.
- Furness, L. W., Burns, C. V., and Busby, M. W., 1966, Kansas streamflow characteristics, part 6B, Base flow distribution: Kansas Water Resources Board Technical Report No. 6B, 139 p.
- Irza, T. J., 1966, Preliminary flood-frequency relations for small streams in Kansas: U.S. Geological Survey open-file report, 19 p.
- Jungmann, W. L., 1966, Geology and ground-water resources of Neosho County, Kansas: Kansas Geological Survey Bulletin 183, 46 p.
- La Rocque, G. A., Jr., 1966, General availability of ground water and depth to water level in the Missouri River basin: U.S. Geological Survey Hydrologic Investigations Atlas HA-217, scale 1:2,500,000, 1 sheet.
- Miller, D. E., 1966, Geology and ground-water resources of Miami County, Kansas: Kansas Geological Survey Bulletin 181, 66 p.
- Morgan, C. O., Dingman, R. J., and McNellis, J. M., 1966, Digital computer methods for water-quality data: Ground Water, Technical Division Journal, National Water Well Association, v. 4, no. 3, July, p. 35-42.
- \*Mundorff, J. C., and Waddell, K. M., 1966, Fluvial sediment and chemical quality of water in the Little Blue River basin, Nebraska and Kansas: U.S. Geological Survey Water-Supply Paper 1819-H, p. H1-H45.
- Roberts, R. S., and Hodson, W. G., 1966, Ground water in Kansas--Bibliography and subject index: Kansas Geological Survey Bulletin 182, 41 p.
- Stramel, G. J., 1966, Progress report on the ground-water hydrology of the Equus-beds area, Kansas-1966: Kansas Geological Survey Bulletin 187, pt. 2, 27 p.
- U.S. Geological Survey, 1966a, Water resources investigations in Kansas, 1965: U.S. Geological Survey folder.
- \_\_\_\_\_, 1966b, Water resources data for Kansas--Part 1, Surface water records, 1965: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_\_, 1966c, Water quality records in Kansas, 1964: U.S. Geological Survey Water-Data Report, 205 p.
- \_\_\_\_\_, 1966d, Ground water in the Cimarron River basin, New Mexico, Colorado, Kansas, and Oklahoma: U.S. Geological Survey open-file report, 51 p.
- Winslow, J. D., and Nuzman, C. E., 1966, Electronic simulation of ground-water hydrology in the Kansas River valley near Topeka, Kansas: Kansas Geological Survey Special Distribution Publication 29, 24 p.

## 1967

- Bayne, C. K., and Schoewe, W. H., 1967, Geology and ground-water resources of Brown County, Kansas: Kansas Geological Survey Bulletin 186, 68 p.
- \*Bayne, C. K., and Ward, J. R., 1967, General availability of ground water in Kansas: Kansas Geological Survey Map M-4, scale 1:500,000, 1 sheet.
- Burns, C. V., 1967, Kansas streamflow characteristics, part 7, Annual streamflow summary tables: Kansas Water Resources Board Technical Report No. 7, 18 p.
- Fader, S. W., 1967, Notes on the shape of the truncated cone of depression in the vicinity of an infinite well field: Kansas Geological Survey Special Distribution Publication 33, 11 p.
- \*Furness, L. W., and Busby, M. W., 1967, Two methods of estimating base flow at ungaged stream sites in Kansas and adjacent States in Geological Survey Research, 1967, Chapter C: U.S. Geological Survey Professional Paper 575-C, p. C208-C211.
- James, I. C., II, 1967, Flood runoff from partially urbanized areas, Wichita, Kansas--Report No. 1, Analysis of initial conditions: U.S. Geological Survey open-file report, 62 p.
- \*Johnson, W. D., Jr., Adkison, W. L., and Wagner, H. C., 1967, Geology of Shawnee County, Kansas: U.S. Geological Survey Bulletin 1215, 254 p.
- U.S. Geological Survey, 1967a, Water resources data for Kansas--Part 1, Surface water records, 1966: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_\_, 1967b, Water resources data for Kansas--Part 2, Water quality records, 1965: U.S. Geological Survey Water-Data Report, 223 p.

## 1968

- Fader, S. W., 1968, Ground water in the Republican River area, Cloud, Jewell, and Republic Counties, Kansas: Kansas Geological Survey Bulletin 188, 27 p.
- James, I. C., II, 1968, Streamflow generalization in an area of the central United States: U.S. Geological Survey open-file report, 60 p.
- Jungmann, W. L., and Williams, C. C., 1968, Geology and ground water in Labette County, Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-279, scale 1:63,390, 1 sheet.
- McNellis, J. M., Morgan, C. O., and Lowell, B. H., 1968, Digital computer applications that facilitate collection and interpretation of ground-water data in International Association Scientific Hydrology, The use of analog and digital computers in hydrology--a symposium: International Association Scientific Hydrology Publication No. 81 AIHS, v. 2, p. 561-568.

1968--Continued

- Pearl, R. H., 1968, Quaternary geology of the Morrison quadrangle, Colorado: Mountain Geologist, Rocky Mountain Association of Geologists, v. 5, no. 4, p. 197-206.
- Prill, R. C., 1968, Movement of moisture in the unsaturated zone in a dune area, southwestern Kansas in Geological Survey Research, 1968, Chapter D: U.S. Geological Survey Professional Paper 600-D, p. D1-D9.
- \*Prill, R. C., and Meyer, W. R., 1968, Neutron moisture measurements by continuous- and point-logging procedures in Geological Survey Research, 1968, Chapter B: U.S. Geological Survey Professional Paper 600-B, p. B226-B230.
- U.S. Geological Survey, 1968a, Water resources data for Kansas--Part 1, Surface water records, 1967: U.S. Geological Survey Water-Data Report, 204 p.
- \_\_\_\_\_, 1968b, Water resources data for Kansas--Part 2, Water quality records, 1966: U.S. Geological Survey Water-Data Report, 223 p.
- Winslow, J. D., McGovern, H. E., and Mackey, H. L., 1968, Water-level changes in Grant and Stanton Counties, Kansas, 1939-1968: Kansas Geological Survey Special Distribution Publication 37, 18 p.

1969

- Albert, C. D., 1969, Total sediment discharge, a compilation: Kansas Water Resources Board Bulletin No. 10, 8 p.
- Bayne, C. K., and Ward, J. R., 1969, Saturated thickness and specific yield of Cenozoic deposits in Kansas: Kansas Geological Survey Map M-5, scale 1:500,000, 1 sheet.
- Dingman, R. J., 1969, Evaluation of the effects of the U.S. Bureau of Reclamation ring dike on the ground-water flow and water quality in the Downs area, Kansas: U.S. Geological Survey open-file report, 19 p.
- Dingman, R. J., and Angino, E. E., 1969, Chemical composition of selected Kansas brines as an aid to interpreting change in water chemistry with depth: Chemical Geology, Amsterdam, v. 4, p. 325-339.
- Dingman, R. J., and Nunez, Jose, 1969, Hydrogeologic reconnaissance of the Canary Islands, Spain in Geological Survey Research, 1969, Chapter C: U.S. Geological Survey Professional Paper 650-C, p. C201-C208.
- Gillespie, J. B., Lindskov, K. L., and Slagle, S. E., 1969, Artificial ground-water recharge, Wet Walnut Creek-Progress report number one: Kansas Water Resources Board, 22 p.

1969--Continued

- Gutentag, E. D., and Galli-Olivier, Carlos, 1969, New locations of Pleistocene (Kansan) molluscan and ostracode faunas, Dickinson County, Kansas, in Geological Survey Research: U.S. Geological Survey Professional Paper 650-D, p. D148-D154.
- Hodson, W. G., 1969, Geology and ground-water resources of Decatur County, Kansas: Kansas Geological Survey Bulletin 196, 41 p.
- Jenkins, E. D., and Hurr, R. T., 1969, Hydrologic investigation, Fort Carson, Colorado Expansion Project, Civil No. 8920-Tract 202, El Paso County, Colorado: U.S. Geological Survey open-file report, 34 p.
- \*Keene, K. M., Pearl, R. H., and Pabst, M. E., 1969, Hydrogeologic data from Cheyenne, Decatur, Rawlins, Sheridan, Sherman, and Thomas Counties, Kansas: U.S. Geological Survey, Kansas Ground Water Basic Data Release No. 1, 113 p.
- Leonard, R. B., 1969a, Time of travel study on the Big Blue River: Kansas Water News, Kansas Water Resources Board, v. 12, no. 3, p. 7 and 8.
- \_\_\_\_\_, 1969b, Effect of irrigation on the chemical quality of low streamflow adjacent to Cedar Bluff Irrigation District, Kansas, a progress report: Kansas State Department of Health Bulletin 1-10, 17 p.
- McNellis, J. M., and Morgan, C. O., 1969, Modified Piper diagrams by the digital computer: Kansas Geological Survey Distribution Publication 45, 36 p.
- McNellis, J. M., Morgan, C. O., and Lowell, B. H., 1969, Computer-produced tables, maps and diagrams as tools in the interpretation of brine data from southeastern Kansas (U.S.A.): Chemical Geology, Amsterdam, v. 4, p. 303-324.
- Meyer, W. R., Gutentag, E. D., and Lobmeyer, D. H., 1969, Finney County basic data: U.S. Geological Survey open-file report, 146 p.
- Miller, D. E., 1969, Geology and ground-water resources of Allen County, Kansas: Kansas Geological Survey Bulletin 195, 50 p.
- Morgan, C. O., and McNellis, J. M., 1969a, FORTRAN IV programs, KANS, for the conversion of General Land Office locations to latitude and longitude coordinates: Kansas Geological Survey Special Distribution Publication 42, 24 p.
- \_\_\_\_\_, 1969b, Stiff diagrams of water-quality data programmed for the digital computer: Kansas Geological Survey Special Distribution Publication 43, 26 p.
- Morgan, C. O., McNellis, J. M., and Lowell, B. H., 1969, Computer applications in hydrology in Kansas in Zeller, D. E., ed., Short papers on research in 1968: Kansas Geological Survey Bulletin 194, pt. 1, p. 3-7.

1969--Continued

- Prill, R. C., and Meyer, W. R., 1969, Neutron moisture measurements by continuous- and point-logging procedures: U.S. Geological Survey Professional Paper 650-C, p. C226.
- \*Ropes, L. H., Morgan, C. O., and McNellis, J. M., 1969, FORTRAN IV program for synthesis and plotting of water-quality data: Kansas Geological Survey Special Distribution Publication 39, 59 p.
- Seevers, W. J., 1969, Geology and ground-water resources of Linn County, Kansas: Kansas Geological Survey Bulletin 193, 62 p.
- U.S. Geological Survey, 1969, Water resources investigations in Kansas, 1968: U.S. Geological Survey folder.
- U.S. Geological Survey, 1969, Water resources data for Kansas--Part 1, Surface water records, 1968: U.S. Geological Survey Water-Data Report, 212 p.

1970

- Dabiri, H. E., Green, D. W., and Winslow, J. D., 1970, Digital computer simulation of an aquifer, in Proceedings of Summer Computer Simulation Conference, Denver, Colo., June 10-12, 1970, p. 944-954.
- Gillespie, J. B., Green, D. W., and Slagle, S. E., 1970, Artificial ground-water recharge, Wet Walnut Creek, central Kansas--Progress report number two: Kansas Water Resources Board, 28 p.
- Gutentag, E. D., Lobmeyer, D. H., and McGovern, H. E., 1970, Ground water in Kearny County, southwestern Kansas: U.S. Geological Survey open-file report, 40 p.
- Jordan, P. R., and Hedman, E. R., 1970, Evaluation of the surface-water data program in Kansas: Kansas Water Resources Board Bulletin No. 12, 49 p.
- Leonard, R. B., 1970, Variations in the chemical quality of ground water beneath an irrigated field, Cedar Bluff Irrigation District, Kansas: Kansas State Department Health Bulletin 1-11, 20 p.
- Leonard, R. B., and Morgan, C. O., 1970, Application of computer techniques to seepage-salinity surveys in Kansas: Kansas Geological Survey Special Distribution Publication 47, 44 p.
- \*Lowell, B. H., Morgan, C. O., and McNellis, J. M., 1970, Brief descriptions of and examples of output from computer programs developed for use with water data in Kansas: Kansas Geological Survey Special Distribution Publication 48, 54 p.

1970--Continued

- Meyer, W. R., Gutentag, E. D., and Lobmeyer, D. H., 1970, Geohydrology of Finney County, southwestern Kansas: U.S. Geological Survey Water-Supply Paper 1891, 117 p.
- U.S. Geological Survey, 1970a, Water resources data for Kansas--Part 1, Surface water records, 1969: U.S. Geological Survey Water-Data Report, 216 p.
- \_\_\_\_ 1970b, Water resources data for Kansas--Part 2, Water quality records, 1967: U.S. Geological Survey Water-Data Report, 191 p.
- \_\_\_\_ 1970c, Water resources data for Kansas--Part 2, Water quality records, 1968: U.S. Geological Survey Water-Data Report, 225 p.

1971

- Bayne, C. K., 1971, Geohydrology of Doniphan County, northeastern Kansas: U.S. Geological Survey open-file report, 21 p.
- Bayne, C. K., Franks, P. C., and Ives, William, Jr., 1971, Geology and ground-water resources of Ellsworth County, central Kansas: Kansas Geological Survey Bulletin 201, 84 p.
- Burns, C. V., 1971, Kansas streamflow characteristics, part 8, In-channel hydraulic geometry of streams in Kansas: Kansas Water Resources Board Technical Report No. 8, 31 p.
- Jenkins, E. D., 1971, Tests of the Stroebel Spring, a supplementary study of the Fort Carson expansion project, Civil Action No. 8920, Tract No. 202, El Paso County, Colorado: U.S. Geological Survey open-file report, 17 p.
- \*Keene, K. M., and Pabst, M. E., 1971, Hydrogeologic data from Gove, Logan, and Wallace Counties, Kansas: Kansas Geological Survey, Ground Water Basic-Data Release No. 2, 76 p.
- McClain, T. J., and Jenkins, E. D., 1971, Digital simulation of the Ogallala aquifer in Sherman County, northwestern Kansas, in Ogallala aquifer symposium, Texas Tech University Special Report 39, p. 72-88.
- McGovern, H. E., 1971, Geology and ground water in the Ogallala Formation and undifferentiated Pleistocene deposits, southwestern Kansas, in Ogallala aquifer symposium: Texas Tech University Special Report 39, p. 15-29.
- Morgan, C. O., and McNellis, J. M., 1971, Reduction of lithologic-log data to numbers for use in the digital computer: Mathematical Geology, v. 3, no. 1, p. 79-86.
- O'Connor, H. G., 1971, Geology and ground-water resources of Johnson County, northeastern Kansas: Kansas Geological Survey Bulletin 203, 68 p.

1971--Continued

- U.S. Geological Survey, 1971a, Water resources data for Kansas--Part 2, Water quality records, 1969: U.S. Geological Survey Water-Data Report, 201 p.
- \_\_\_\_ 1971b, Water resources data for Kansas--Part 1, Surface water records, 1970: U.S. Geological Survey Water-Data Report, 216 p.
- \_\_\_\_ 1971c, Water resources data for Kansas--Part 2, Water quality records, 1970: U.S. Geological Survey Water-Data Report, 159 p.
- Ward, J. R., 1971, Geohydrology of Atchison County, northeastern Kansas: U.S. Geological Survey open-file report, 22 p.

1972

- Gillespie, J. B., and Slagle, S. E., 1972, Natural and artificial ground-water recharge, Wet Walnut Creek, central Kansas: Kansas Water Resources Board Bulletin 17, 94 p.
- Gutentag, E. D., Lobmeyer, D. H., and McGovern, H. E., 1972, Ground water in Kearny County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-416, scale 1:125,000, 2 sheets.
- Gutentag, E. D., Lobmeyer, D. H., McGovern, H. E., and Long, W. A., 1972, Ground water in Finney County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-442, scale 1:250,000, 3 sheets.
- Halepaska, J. C., and Hartman, J. W., 1972, Numerical solution of the three-dimensional heat flow equation: Kansas Geological Survey Bulletin 204, pt. 1, p. 11-13.
- Hedman, E. R., and Kastner, W. M., 1972, Kansas streamflow characteristics, part 9, Mean annual runoff as related to channel geometry of selected streams in Kansas: Kansas Water Resources Board Technical Report No. 9, 25 p.
- Leonard, R. B., and Stoltenberg, G. A., 1972, Compilation of data for water-quality investigation, Cedar Bluff Irrigation District, Kansas: Kansas State Department Health Bulletin 1-12, 158 p.
- Leonard, R. B., 1972, Chemical quality of water in the Walnut River basin, south-central Kansas: U.S. Geological Survey Water-Supply Paper 1982, 113 p.
- Pearl, R. H., Roberts, R. S., Keene, K. M., and McClain, T. J., 1972, Water resources of northwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-429, scale 1:250,000, 2 sheets.

### 1972--Continued

- Richards, D. B., and Dunaway, T. W., 1972, Geohydrologic data for numerical modeling of ground-water withdrawals in the Little Arkansas River basin area, south-central Kansas: U.S. Geological Survey open-file report, 426 p.
- U.S. Geological Survey, 1972a, Water resources investigations in Kansas, 1972: U.S. Geological Survey folder.
- \_\_\_\_\_ 1972b, Water resources data for Kansas--Part 1, Surface water records, 1971: U.S. Geological Survey Water-Data Report, 206 p.
- \_\_\_\_\_ 1972c, Water resources data for Kansas--Part 2, Water quality records, 1971: U.S. Geological Survey, Water-Data Report, 140 p.
- Winslow, J. D., 1972, Geohydrology of Jefferson County, northeastern Kansas: Kansas Geological Survey Bulletin 202, pt. 4, 20 p.

### 1973

- Albert, C. D., 1973, Fluvial sediment characteristics of the Kansas River at Wamego, Kansas, 1957-70: U.S. Geological Survey open-file report, 13 p.
- Bayne, C. K., 1973, Geohydrology of Doniphan County, northeastern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-462, scale 1:62,500, 1 sheet.
- Broeker, M. E., and McNellis, J. M., 1973, Ground-water levels in observation wells in Kansas, 1966-70: Kansas Geological Survey Basic Data Series Ground-Water Release No. 3, 373 p.
- Layton, D. W., and Berry, D. W., 1973, Geology and ground-water resources of Pratt County, south-central Kansas: Kansas Geological Survey Bulletin 205, 33 p.
- McNellis, J. M., 1973, Geology and ground-water resources of Rush County, central Kansas: Kansas Geological Survey Bulletin 207, 45 p.
- O'Connor, H. G., 1973, Geohydrology for urban planning in Johnson County, northeastern Kansas: Kansas Geological Survey Open-File Report 73-9, 41 p.
- \*Pabst, M. E., and Jenkins, E. D., 1973, Water-level changes in northwestern Kansas, 1950-73: Kansas Geological Survey Journal, October 1973, 14 p.
- U.S. Geological Survey, 1973a, Water resources data for Kansas--Part 1, Surface water records, 1972: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_\_ 1973b, Water resources data for Kansas--Part 2, Water quality records, 1972: U.S. Geological Survey Water-Data Report, 154 p.

1973--Continued

Ward, J. R., 1973, Geohydrology of Atchison County, northeastern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-467, scale 1:62,500, 2 sheets.

1974

Bayne, C. K., and Ward, J. R., 1974, Geology and hydrology of Rice County, central Kansas: Kansas Geological Survey Bulletin 206, pt. 3, 17 p.

Fader, S. W., 1974, Ground water in the Kansas River valley, Junction City to Kansas City, Kansas: Kansas Geological Survey Bulletin 206, pt. 2, 12 p.

Gutentag, E. D., and Stullken, L. E., 1974, Ground water in Haskell County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-515, scale 1:250,000, 2 sheets.

Hedman, E. R., and Kastner, W. M., 1974, Progress report on streamflow characteristics as related to channel geometry of streams in the Missouri River basin: U.S. Geological Survey open-file report, 24 p.

Hedman, E. R., Kastner, W. M., and Hejl, H. R., 1974, Kansas streamflow characteristics, part 10, Selected streamflow characteristics as related to active-channel geometry of streams in Kansas: Kansas Water Resources Board Technical Report No. 10, 21 p.

Kastner, W. M., 1974, Application of statistical techniques to the estimation of ground-water withdrawals in northwestern Kansas: U.S. Geological Survey Water-Resources Investigations 41-74, 11 p.

Leonard, R. B., 1974, Changes in chemical quality of water, Cedar Bluff Irrigation District area, west-central Kansas: Kansas Geological Survey Chemical Quality Series No. 1, 72 p.

Lobmeyer, D. H., and Sauer, C. G., 1974, Water resources of Hamilton County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-516, scales 1:250,000 and 1:500,000, 2 sheets.

McGovern, H. E., and Long, W. A., 1974, Ground water in Gray County, southwestern Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-517, scale 1:250,000, 2 sheets.

O'Connor, H. G., 1974, Geology and ground-water resources of Montgomery County southeastern Kansas: Kansas Geological Survey Ground-Water Series No. 1, 12 p.

\*Pabst, M. E., and Jenkins, E. D., 1974, Water-level changes in west-central Kansas, 1950-74: Kansas Geological Survey Journal, October 1974, 15 p.

### 1974--Continued

- Snipes, R. J., and others, 1974, Floods of June 1965, in Arkansas River basin, Colorado, Kansas, and New Mexico: U.S. Geological Survey Water-Supply Paper 1850-D, D1-D97.
- Stullken, L. E., Weakly, E. C., Gutentag, E. D., and Slagle, S. E., 1974, Hydrogeologic data from Greeley, Wichita, Scott, and Lane Counties, Kansas: Kansas Geological Survey Basic Data Series, Ground-Water Release No. 4, 58 p.
- U.S. Geological Survey, 1974a, Water resources data for Kansas--Part 1, Surface water records, 1973: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_\_, 1974b, Water resources data for Kansas--Part 2, Water quality records 1973: U.S. Geological Survey Water-Data Report, 168 p.
- Ward, J. R., 1974, Geohydrology of Nemaha County, northeastern Kansas: Kansas Geological Survey Ground-Water Series No. 2, 19 p.

### 1975

- Albin, D. R., 1975, Water resources alternative study areas, proposed Prairie National Park, Kansas-Oklahoma, in Preliminary environmental assessment, alternative study areas, proposed Prairie National Park, Kansas-Oklahoma (appendix D): U.S. Department of Interior, National Park Service, 32 p.
- Burns, C. V., 1975, Kansas streamflow characteristics, Temperatures of Kansas streams: Kansas Water Resources Board Technical Report No. 12, 220 p.
- Fader, S.W., 1975, Land subsidence caused by dissolution of salt near four oil and gas wells in central Kansas: U.S. Geological Survey Water-Resources Investigations 27-75, 28 p.
- Fader, S. W., and Morton, R. B., 1975a, Ground water in the Verdigris River basin, Kansas and Oklahoma: U.S. Geological Survey Open-File Report 75-365, 26 p.
- \_\_\_\_\_, 1975b, Ground water in the Middle Arkansas River basin, Kansas and Oklahoma: U.S. Geological Survey Open-File Report 75-367, 44 p.
- Jenkins, E. D., and Pabst, M. E., 1975, Water development for irrigation in northwestern Kansas: U.S. Geological Survey Open-File Report 4-75, 39 p.
- Jordan, P. R., and Irza, T. J., 1975, Kansas streamflow characteristics, Magnitude and frequency of floods in Kansas, unregulated streams: Kansas Water Resources Board Technical Report No. 11, 34 p.

### 1975--Continued

- McClain, T. J., Jenkins, E. D., Keene, K. M., and Pabst, M. E., 1975, Water resources of Gove, Logan, and Wallace Counties, west-central Kansas: U.S. Geological Survey Hydrologic Investigations Atlas HA-521, scales 1:250,000 and 1:500,000, 2 sheets.
- Morton, R. B., and Fader, S. W., 1975, Ground water in the Grand (Neosho) River basin, Kansas and Oklahoma: U.S. Geological Survey Open-File Report 75-366, 35 p.
- U.S. Geological Survey 1975a, Water resources data for Kansas--Part 1, Surface water records, 1974: U.S. Geological Survey Water-Data Report, 202 p.
- \_\_\_\_ 1975b, Water resources data for Kansas--Part 2, Water quality records, 1974: U.S. Geological Survey Water-Data Report, 188 p.

### 1976

- Burns, C. V., Maddy, D. V., Jordan, P. R., and McNellis, J. M., 1976, Kansas streamflow characteristics, physical and climatic characteristics along Kansas streams: Kansas Water Resources Board Technical Report No. 13, 41 p.
- Ehlig, Christine, and Halepaska, J. C., 1976, A numerical study of confined-unconfined aquifers including effects of delayed yield and leakage: American Geophysical Union, Water Resources Research, v. 12, no. 6, p. 1175-1183.
- Fader, S. W., and Stullken, L. E., 1976, Geohydrologic maps of the Great Bend Prairie, south-central Kansas: U.S. Geological Survey Open-File Report 76-405, 4 pl.
- Gillespie, J. B., and Hargadine, G. D., 1975, Results of infiltration tests near Scott City, western Kansas: U.S. Geological Survey Water-Resources Investigations 76-12, 29 p.
- Gutentag, E. D., 1975, Map showing percent change in saturated thickness of unconsolidated aquifer, 1950-76, west-central Kansas: U.S. Geological Survey Open-File Report 76-457, 1 pl.
- Gutentag, E. D., and Stullken, L. E., 1976, Ground-water resources of Lane and Scott Counties, western Kansas: Kansas Geological Survey Irrigation Series No. 1, 37 p.
- Leonard, R. B., and Kleinschmidt, M. K., 1976, Saline water in the Little Arkansas River basin area, south-central Kansas: Kansas Geological Survey Chemical Quality Series 3, 24 p.

1976--Continued

- \*Pabst, M. E., and Jenkins, E. D., 1976a, Water-level changes in southwestern Kansas, 1940-75: Kansas Geological Survey Journal, May 1976, 26 p.
- \_\_\_\_\_ 1976b, Water-level changes in northwestern Kansas, 1950-76: Kansas Geological Survey Journal, December 1976, 20 p.
- Slagle, S. E., and Weakly, E. C., 1976, Ground-water resources of Greeley and Wichita Counties, western Kansas: Kansas Geological Survey Irrigation Series No. 2, 21 p.
- Stullken, L. E., and Fader, S. W., 1976, Hydrogeologic data from the Great Bend Prairie, south-central Kansas: Kansas Geological Survey Basic Data Series Ground-Water Release No. 5, 50 p.
- U.S. Geological Survey, 1976, Water resources data for Kansas, water year 1975: U.S. Geological Survey Water-Data Report KS-75-1, 405 p.

1977

- Broeker, M. E., McIntyre, H. J., Jr., and McNellis, J. M., 1977, Ground-water levels in observation wells in Kansas, 1971-75: Kansas Geological Survey Basic Data Series, Ground-Water Release 6, 526 p.
- Fader, S. W., and Stullken, L. E., 1977, Geohydrology of the Great Bend Prairie, south-central Kansas: U.S. Geological Survey Open-File Report 77-305, 53 p.
- Gillespie, J. B., Hargadine, G. D., and Stough, M. J., 1977, Artificial-recharge experiments near Lakin, western Kansas: Kansas Water Resources Board Bulletin 20, 91 p.
- Hedman, E. R., and Kastner, W. M., 1977, Streamflow characteristics related to channel geometry in the Missouri River basin: U.S. Geological Survey Journal of Research, v. 5, no. 3, p. 285-300.
- Hejl, H. R., Jr., 1977, A method for adjusting values of Manning's roughness coefficient for flooded urban areas: U.S. Geological Survey Journal of Research, v. 5, no. 5, p. 541-545.
- Jenkins, E. D., and Pabst, M. E., 1977, Water-resources reconnaissance of Ness County, west-central Kansas: Kansas Geological Survey Irrigation Series 3, 26 p.
- Jordan, P. R., 1977, Streamflow transmission losses in western Kansas: Proceedings, American Society Civil Engineers, Hydraulics Division Journal, v. 103, no. HY8, p. 905-919.
- Keene, K. M., and Bayne, C. K., 1977, Ground water from Lower Cretaceous rocks in Kansas: Kansas Geological Survey Chemical Quality Series 5, 18 p.

## 1977--Continued

- McElwee, C. D., 1977, The Theis equation--Evaluation, sensitivity to storage and transmissivity, and automated fit of pump test data: Kansas Geological Survey Open-File Report 77-5, 38 p.
- Osterkamp, W. R., 1977, Fluvial sediment in the Arkansas River basin, Kansas: Kansas Water Resources Board Bulletin 19, 91 p.
- Osterkamp, W.R., and Hedman, E. R., 1977, Variation of width and discharge for natural high-gradient stream channels: American Geophysical Union, Water Resources Research, v. 13, no. 2, p. 256-258.
- Pabst, M. E., 1977a, January 1977 water levels, and data related to water-level changes since 1950, western Kansas: U.S. Geological Survey Open-File Report 77-264, 209 p.
- \_\_\_\_\_ 1977b, Map showing percentage decline in saturated thickness of unconsolidated aquifer, 1950-77, west-central Kansas: U.S. Geological Survey Open-File Report 77-675, 1 pl.
- Pabst, M. E., and Gutentag, E. D., 1977, Water-level changes in west-central Kansas, 1950-77: Kansas Geological Survey Journal, October 1977, 18 p.
- Prill, R. C., 1977, Movement of moisture in the unsaturated zone in a loess-mantled area, southwestern Kansas: U.S. Geological Survey Professional Paper 1021, 21 p.
- U.S. Geological Survey, 1977, Water-resources data for Kansas, water year 1976: U.S. Geological Survey Water-Data Report KS-76-1, 395 p.

## 1978

- Carswell, W. J., Jr., 1978a, Hydrologic data for Soldier Creek basin, Kansas: U. S. Geological Survey Water-Resources Investigations 78-87, 26 p.
- \_\_\_\_\_ 1978b, Description of data-collection system and synopsis of selected hydrologic data for Soldier Creek basin, Kansas: U.S. Geological Survey Open-File Report 78-678, 80 p.
- Fader, S. W., and Stullken, L. E., 1978, Geohydrology of the Great Bend Prairie, south-central Kansas: Kansas Geological Survey Irrigation Series 4, 19 p.
- Gutentag, E. D., Lobmeyer, D. H., and Slagle, S. E., 1978, Map showing saturated thickness of the unconsolidated aquifer, southwestern Kansas, January 1975: U.S. Geological Survey Open-File Report 78-80, 1 pl.
- Hauth, L. D., and Carswell, W. J., Jr., 1978, Floods in Kansas City, Missouri and Kansas, September 12-13, 1977: U.S. Geological Survey Water-Resources Investigations 78-63, 43 p.

1978--Continued

- Jordan, P. R., 1978a, Statistical summary of streamflow data for Kansas streams in the Arkansas River basin: Kansas Water Resources Board Technical Report 14A, 206 p.
- \_\_\_\_ 1978b, Loss of high flows by seepage from stream channels in Kansas: Kansas Water Resources Board, Kansas Water News, v. 21, nos. 1 and 2, p. 30-34.
- Lobmeyer, D. H., and Weakly, E. C., 1978, Water in Dakota Formation, Hodgeman and northern Ford Counties, southwestern Kansas: U.S. Geological Survey Open-File Report 78-886, 81 p.
- McElwee, C. D., and Yukler, M. R., 1978, Sensitivity of groundwater models with respect to variations in transmissivity and storage: American Geophysical Union, Water Resources Research, v. 14, no. 3, p. 451-459.
- Osterkamp, W. R., 1978a, Effect of channel sediment on width-discharge relations, with emphasis on streams in Kansas: Kansas Water Resources Board Bulletin 21, 25 p.
- \_\_\_\_ 1978b, Gradient, discharge, and particle-size relations of alluvial channels in Kansas, with observations on braiding: American Journal of Science, v. 278, November 1978, p. 1253-1268.
- \_\_\_\_ 1978c, Bed- and bank-sampling procedure at channel geometry sites: Proceedings of National Conference on Sampling, Validation, and Quality Control of Environmental Measurements, Atlanta, Ga., May 31-June 2, 1978.
- Osterkamp, W. R., McNellis, J. M., Jordan, P. R., 1978, Guidelines for the use of structural versus regression analysis in geomorphic studies: U.S. Geological Survey Water-Resources Investigation 78-135, 22 p.
- Pabst, M. E., 1978a, January 1978 water levels, and data related to water-level changes since 1940 or 1950, western Kansas: U.S. Geological Survey Open-File Report 78-409, 179 p.
- \_\_\_\_ 1978b, Map showing percentage decrease in saturated thickness of unconsolidated aquifer, 1950-78, west-central Kansas: U.S. Geological Survey Open-File Report 78-874, 1 pl.
- \_\_\_\_ 1978c, Map showing saturated thickness of unconsolidated aquifer, southwestern Kansas, January 1978: U.S. Geological Survey Open-File Report 78-969, 4 pl.
- Peek, C. O., and Jordan, P. R., 1978, Determination of peak discharge from rainfall data for urbanized basins, Wichita, Kansas: U.S. Geological Survey Open-File Report 78-974, 49 p.
- Shelton, L. R., 1978, Artificial substrate retriever: U.S. Geological Survey, Water Resources Division Bulletin, July-September 1978, p. 19-22.

1978--Continued

- U.S. Geological Survey, 1978a, Water resources investigations in Kansas: U.S. Geological Survey folder.
- \_\_\_\_ 1978b, Water resources data for Kansas, water year 1977: U.S. Geological Survey Water-Data Report KS-77-1, 618 p.
- \_\_\_\_ 1978c, Water resources data for Kansas, 1978 water year: U.S. Geological Survey Water Data Report KS-78-1, 656 p.
- \_\_\_\_ 1978d, Water-resources investigations in Kansas, fiscal year 1977: U.S. Geological Survey, Kansas District, 80 p.
- \_\_\_\_ 1978e, Water-resources investigations in Kansas, 1978: U.S. Geological Survey, Water Index folder.

1979

- Baker, C. H., Jr., 1979a, New instrumentation for the National Water-Use Data Program: U.S. Geological Survey, Water Resources Division Bulletin, October-December 1978, January-June 1979, p. 46-47.
- \_\_\_\_ 1979b, Evaluation of methods for estimating ground-water withdrawals in western Kansas: U.S. Geological Survey Water-Resources Investigations 79-92, 70 p.
- Carswell, W. J., Jr., 1979, Multiyear low flow in southeastern Kansas: U.S. Geological Survey Water-Resources Investigations, Open-File Report 79-1288, 26 p.
- Denne, J. E., 1979, Uncovering buried valleys in northeastern Kansas: Kansas Geological Survey, The Journal, v. 1, no. 3, 4 p.
- Jordan, P. R., 1979a, Relation of sediment yield to climatic and physical characteristics in the Missouri River basin: U.S. Geological Survey Water-Resources Investigations 79-49, 26 p.
- \_\_\_\_ 1979b, Statistical summary of streamflow data for Kansas streams in the Missouri River basin: Kansas Water Resources Board Technical Report No. 14B, 334 p.
- Kume, Jack, Dunlap, L. E., Gutentag, E. D., and Thomas, J. G., 1979, Hydrologic and related data for water-supply in an intensive-study area, northeastern Wichita County, Kansas: U.S. Geological Survey Water-Resources Investigations 79-105, 51 p.
- Lobmeyer, D. H., and Weakly, E. C., 1979, Water in the Dakota Formation, Hodge-man and northern Ford Counties, southwestern Kansas: Kansas Geological Survey Irrigation Series 5, 41 p.

1979--Continued

- McGovern, H. E., and Combs, L. J., 1979, Water-resources investigations in Kansas-fiscal year 1978: U.S. Geological Survey Open-File Report 79-561, 85 p.
- Osterkamp, W. R., 1979a, Bed- and bank-material sampling procedure at channel-geometry sites: National Conference on Quality Assurance of Environmental Measurement, Information Transfer Inc., p. 86-89.
- \_\_\_\_\_ 1979b, Variation of alluvial-channel width with discharge and character of sediment: U.S. Geological Survey Water-Resources Investigations 79-15, 11 p.
- \_\_\_\_\_ 1979c, Invariant power functions as applied to fluvial morphology, in Rhodes, D. D., and Williams, G. R., eds., Adjustments of the fluvial system: Kendall/Hunt Publishing Co., p. 33-54.
- Osterkamp, W. R., and Hedman, E. R., 1979, Discharge estimates in surface-mine areas using channel-geometry techniques: Proceedings, Symposium on Surface-Mine Hydrology, Sedimentology and Reclamation, University of Kentucky Bulletin 119, p. 43-49.
- Pabst, M. E., 1979a, January 1979 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Open-File Report 79-925, 213 p.
- \_\_\_\_\_ 1979b, Maps showing saturated thickness, January 1979, and percentage decrease in saturated thickness, 1950-79, of unconsolidated aquifer, west-central Kansas: U.S. Geological Survey Open-File Report 79-1340, scale 1:125,000, 2 sheets.
- Pabst, M. E., and Gutentag, E. D., 1979, Water-level changes in southwestern Kansas, 1940-78: Kansas Geological Survey Journal, May 1979, 29 p.
- Rosenshein, J. S., 1979, Groundwater in the United States 1975-78: American Geophysical Union, Reviews of Geophysics and Space Physics, v. 17, no. 6, September 1979, p. 1240-1253.
- Rosenshein, J. S., and McNellis, J. M., 1979, WRD prototype minicomputer system in the Kansas District: U.S. Geological Survey, Water Resources Division Bulletin, October-December 1978, January-June 1979, p. 42-45.
- Skougstad, M. W., and others, 1979, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques of Water-Resources Investigations, Book 5, Chapter A1, 626 p.
- U.S. Geological Survey, 1979, Water resources data for Kansas, water year 1978: U.S. Geological Survey Water-Data Report KS-78-1, 656 p.

1980

- Bevans, H. E., 1980, A procedure for predicting concentrations of dissolved solids and sulfate ion in streams draining areas strip mined for coal: U.S. Geological Survey Water-Resources Investigations, Open-File Report 80-764, 17 p.
- Bevans, H. E., and Diaz, A. M., 1980, Statistical summaries of water-quality data for streams draining coal-mined areas, southeastern Kansas: U.S. Geological Survey Hydrologic Data, Open-File Report 80-350, 42 p.
- Carswell, W. J., Jr., and Bond, S. V., 1980, Multiyear low flow of streams in northeastern Kansas: U.S. Geological Survey Water-Resources Investigations, Open-File Report 80-734, 26 p.
- Dunlap, L. E., 1980, Simulated water-level declines near Marienthal, west-central Kansas: U.S. Geological Survey Water-Resources Investigations 80-39, 15 p.
- Dunlap, L. E., Kume, Jack, and Thomas, J. G., 1980, Geohydrology and model analysis for water-supply management in a small area of west-central Kansas: U.S. Geological Survey Water-Resources Investigations 80-91, 59 p.
- Gutentag, E. D., Lobmeyer, D. H., and Slagle, S. E., 1980, Geohydrology of southwestern Kansas: U.S. Geological Survey Open-File Report 80-218, 97 p.
- Longwill, S. M., McNellis, J. M., and Posson, D. R., 1980, The use of mini-computers in a distributed information processing system--a feasibility study: U.S. Geological Survey Open-File Report 80-326, 68 p.
- Osterkamp, W. R., 1980, Sediment-morphology relations of alluvial channels: American Society Civil Engineers Proceedings, Watershed Management Symposium, Boise, Idaho, 12 p.
- Osterkamp, W. R., and Wiseman, A. G., 1980, Particle-size analyses of bed and bank material from channels of the Missouri River basin: U.S. Geological Survey Hydrologic Data, Open-File Report 80-429, 31 p.
- Pabst, M. E., 1980, January 1980 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Hydrologic Data, Open-File Report 80-958, 166 pages.
- Perry, C. A., 1980, Preliminary analysis of regional-precipitation periodicity: U.S. Geological Survey Water-Resources Investigations 80-74, 26 p.
- Stullken, L. E., 1980, Hydrogeologic data from north-central Kansas: Kansas Geological Survey Basic Data Series, Ground-Water Release 7, 46 p.
- U.S. Geological Survey, 1980a, Water resources data for Kansas, water year 1979--volume 1. Missouri River basin: U.S. Geological Survey Water-Data Report KS-79-1, 372 p.

1980--Continued

\_\_\_\_ 1980b, Water resources data for Kansas, water year 1979--volume 2. Arkansas River basin: U.S. Geological Survey Water-Data Report KS-79-2, 362 p.

1981

Barker, R. A., Dunlap, L. E., and Sauer, C. A., 1981, Analysis and computer simulation of stream-aquifer hydrology, Arkansas River valley, southwestern Kansas: U.S. Geological Survey Open-File Report 81-686, 130 p.

Carswell, W. J., Jr., 1981, Selected hydrologic relations for Soldier Creek, northeastern Kansas: U.S. Geological Survey Water-Resources Investigations 81-8, 68 p.

Dunlap, L. E., and Spinazola, J. M., 1981a, Hydrologic maps of Ogallala aquifer, west-central Kansas: U.S. Geological Survey Open-File Report 81-908, 4 sheets.

\_\_\_\_ 1981b, Interpolating water-table altitudes in west-central Kansas using kriging techniques: U.S. Geological Survey Open-File Report 81-1062, 51 p.

Gillespie, J. B., and Hargadine, G. D., 1981, Saline ground-water discharge to the Smoky Hill River between Salina and Abilene, central Kansas: U.S. Geological Survey Water-Resources Investigations 81-43, 71 p.

Gogel, Tony, 1981a, Discharge of saltwater from Permian rocks to major stream-aquifer systems in central Kansas: Kansas Geological Survey Chemical Quality Series 9, 60 p.

\_\_\_\_ 1981b, Preliminary data from Arbuckle test wells, Miami, Douglas, Saline, and Labette Counties, Kansas: U.S. Geological Survey Open-File Report 81-1112, 155 p.

Gutentag, E. D., Lobmeyer, D. H., and Slagle, S. E., 1981, Geohydrology of southwestern Kansas: Kansas Geological Survey Irrigation Series 7, 73 p.

Jorgensen, D. G., and Signor, D. C., 1981, Plan of study for the Central Midwest Regional Aquifer System Analysis in parts of Arkansas, Colorado, Kansas, Missouri, Nebraska, New Mexico, Oklahoma, South Dakota, and Texas: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-206, 28 p.

Jorgensen, D. G., and Stullken, L. E., 1981, Hydrology and model of North Fork Solomon River valley, Kirwin Dam to Waconda Lake, north-central Kansas: Kansas Geological Survey Irrigation Series 6, 34 p.

McGovern, H. E., and Combs, L. J., 1981, Water-resources investigations of the U.S. Geological Survey in Kansas--Fiscal years 1979 and 1980: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-348, 107 p.

1981--Continued

- Osterkamp, W. R., Curtis, R. E., Jr., and Crowther, H. G., 1981, Sediment and channel-geometry investigations for the Kansas River Bank-Stabilization Study, Kansas, Nebraska, and Colorado: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-128, 72 p.
- Osterkamp, W. R., and Hedman, E. R., 1981, Channel geometry of regulated streams in Kansas as related to mean discharge, 1970-80: Kansas Water Office Technical Report No. 15, 32 p.
- Pabst, M. E., 1981, January 1981 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Open-File Report 81-1001, 168 p.
- Pabst, M. E., and Stullken, L. E., 1981, Altitude and configuration of water table in High Plains aquifer in Kansas, 1980: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-1004, scale 1:500,000, 1 sheet.
- Reed, T. B., 1981, Map of water table in Solomon River valley, Waconda Lake to Solomon, north-central Kansas, May 1980: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-334, scale 1:125,000, 1 sheet.
- Spinazola, J. M., 1981, Map of water table in Graham County, northwestern Kansas, March 1979: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-333, scale 1:125,000, 1 sheet.
- Spruill, T. B., and Kenny, J. F., 1981, Location of sampling sites and available information on wells sampled in the Kansas Ground-Water-Quality Monitoring Network, 1976-80: U.S. Geological Survey Hydrologic Data, Open-File Report 81-925, 49 p.
- Stullken, L. E., and Pabst, M. E., 1981, Altitude and configuration of water table in High Plains regional aquifer of Kansas, 1975: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-144, scale 1:500,000, 1 sheet.
- U.S. Geological Survey, 1981a, Water resources data for Kansas, water year 1980--volume 1. Missouri River basin: U.S. Geological Survey Water-Data Report KS-80-1, 422 p.
- \_\_\_\_\_, 1981b, Water resources data for Kansas, water year 1980--volume 2. Arkansas River basin: U.S. Geological Survey Water-Data Report KS-80-2, 340 p.
- Watts, K. R., and Stullken, L. E., 1981, Generalized configuration of the base of the High Plains aquifer in Kansas: U.S. Geological Survey Water-Resources Investigations, Open-File Report 81-344, scale 1:500,000, 1 sheet.

1982

- Bevans, H. E., 1982, Water-quality and fluvial-sediment characteristics of selected streams in northeast Kansas: U.S. Geological Survey Water-Resources Investigations 82-4005, 53 p.
- Carswell, W. J., Jr., 1982, Storage requirements to sustain gross reservoir outflow from small basins in Kansas: Kansas Water Office Technical Report No. 16, 40 p.
- Clement, R. W., and Johnson, D. G., 1982, Flood of June 15, 1981, in Great Bend and vicinity, central Kansas: U.S. Geological Survey Water-Resources Investigations Report 82-4123, 9 p.
- Dunlap, L. E., 1982, Geohydrology of principal aquifers in the Republican River basin, Kansas: U.S. Geological Survey Open-File Report 82-79, 5 sheets.
- Hedman, E. R., and Osterkmap, W. R., 1982, Streamflow characteristics related to channel geometry of streams in western United States: U.S. Geological Survey Water-Supply Paper 2193, 17 p.
- Jordan, P. R., 1982, Rainfall-runoff relations and expected streamflow in western Kansas: Kansas Water Office Bulletin 25, 42 p.
- Jorgensen, D. G., Gogel, Tony, and Signor, D. C., 1982, Determination of flow in aquifers containing variable-density water, in Ground Water Monitoring Review: Water Well Journal Publishing Co., Worthington, Ohio, v. 2, no. 2, Spring 1982, p. 40-45.
- Jorgensen, D. G., Grubb, H. F., Baker, C. H., Jr., Hilmes, G. E., and Jenkins, E. D., 1982, A numerical model to evaluate proposed ground-water allocations in southwest Kansas: U.S. Geological Survey Water-Resources Investigations 82-4095, 46 p.
- Kenny, J. F., Bevans, H. E., and Diaz, A. M., 1982, Physical and hydrologic environments of the Mulberry coal reserves in eastern Kansas: U.S. Geological Survey Water-Resources Investigations 82-4074, 50 p.
- Kenny, J. F., and McCauley, J. R., 1982, Remote sensing investigations in the coal fields of southeastern Kansas, chap. 29 of Remote sensing for resource management (outgrowth of a national conference by the same name, held October 28-30, 1980, at Kansas City, Mo., 665 p.): Soil Conservation Society of American, Ankeny, Iowa, p. 338-346.
- Kume, Jack, and Spinazola, J. M., 1982, Geohydrologic data from sandstone aquifers in southwestern Kansas: U.S. Geological Survey Open-File Report 82-868, 112 p.
- Lindgren, R. J., 1982, Determination of irrigation pumpage in parts of Kearny and Finney Counties, southwestern Kansas: U.S. Geological Survey Water-Resources Investigations 82-4011, 26 p.

1982--Continued

- Osterkamp, W. R., and Hedman, E. R., 1982, Perennial-streamflow characteristics related to channel geometry and sediment in Missouri River basin: U.S. Geological Survey Professional Paper 1242, 37 p.
- Osterkamp, W. R., Hedman, E. R., and Wiseman, A. G., 1982, Geometry, basin characteristics, discharge, and particle-size data from gaged stream-channel sites, western United States: U.S. Geological Survey Hydrologic Data, Open-File Report 82-93, 56 p.
- Pabst, M. E., 1982a, January 1982 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Open-File Report 82-649, 167 p.
- \_\_\_\_\_ 1982b, Map showing percentage change in saturated thickness of the High Plains aquifer, west-central Kansas, 1950 to average 1980-82: U.S. Geological Survey Open-File Report 82-1010, scale 1:125,000, 1 sheet.
- Pabst, M. E., and Stullken, L. E., 1982a, Altitude and configuration of water table in High Plains aquifer in Kansas, 1960: U.S. Geological Survey Water-Resources Investigations, Open-File Report 82-429, scale 1:500,000, 1 sheet.
- \_\_\_\_\_ 1982b, Altitude and configuration of water table in High Plains aquifer in Kansas, 1970: U.S. Geological Survey Water-Resources Investigations, Open-File Report 82-448, scale 1:500,000, 1 sheet.
- \_\_\_\_\_ 1982c, Altitude and configuration of water table in High Plains aquifer in Kansas, 1965: U.S. Geological Survey Water-Resources Investigations, Open-File Report 82-449, scale 1:500,000, 1 sheet.
- Pope, L. M., and Diaz, A. M., 1982, Quality-of-water data and statistical summary for selected coal-mine strip pits in Crawford and Cherokee Counties, southeastern Kansas: U.S. Geological Survey Open-File Report 82-1021, 28 p.
- Spinazola, J. M., 1982a, Hydrologic maps of the Ogallala aquifer, west-central Kansas, 1979-81: U.S. Geological Survey Open-File Report 82-258, scale 1:125,000, 4 sheets.
- \_\_\_\_\_ 1982b, Hydrologic maps of the High Plains aquifer, January 1981, southwestern Kansas: U.S. Geological Survey Water-Resources Investigations 82-4079, scale 1:125,000, 8 sheets.
- Spruill, T. B., 1982, Nitrate-nitrogen concentrations in ground water from three selected areas in Kansas: U.S. Geological Survey Water-Resources Investigations 82-11, 32 p.
- Stullken, L. E., and Pabst, M. E., 1982, Altitude and configuration of the water table in the High Plains aquifer of Kansas, pre-1950: U.S. Geological Survey Water-Resources Investigations, Open-File Report 82-117, scale 1:500,000, 1 sheet.

1982--Continued

U.S. Geological Survey, 1982, Water resources data for Kansas, water year 1981: U.S. Geological Survey Water-Data Report KS-81-1, 566 p.

1983

Baker, C. H., Jr., 1983, Evaluation of techniques for estimating ground-water withdrawals for irrigation in western Kansas: Kansas Water Office Bulletin 26, 14 p.

Barker, R. A., Dunlap, L. E., and Sauer, C. G., 1983, Analysis and computer simulation of stream-aquifer hydrology, Arkansas River valley, southwestern Kansas: U.S. Geological Survey Water-Supply Paper 2200, 59 p.

Clement, R. W., 1983, Improvement of flood-frequency estimates for selected small watersheds in eastern Kansas using a rainfall-runoff model: U.S. Geological Survey Water-Resources Investigations Report 83-4110, 22 p.

Dunlap, L. E., Lindgren, R. J., and Sauer, C. G., 1983, Geohydrology and model analysis of stream-aquifer system along the Arkansas River in Kearny and Finney Counties, southwestern Kansas: U.S. Geological Survey Open-File Report 83-222, 84 p.

Geiger, C. O., Lacock, D. L., Shelton, L. R., Penny, M. L., and Merry, C. E., 1983, Water resources data, Kansas, water year 1982: U.S. Geological Survey Water-Data Report KS-82-1, 485 p.

Jordan, P. R., 1983, Magnitude and frequency of low flows of unregulated streams in Kansas, and estimation of flow-duration curves for ungaged sites: Kansas Water Office Technical Report No. 17, 55 p.

Kenny, J. F., and Combs, L. J., 1983, Water-resources investigations of the U.S. Geological Survey in Kansas--fiscal years 1981 and 1982: U.S. Geological Survey Open-File Report 83-932, 87 p.

Kenny, J. F., and McCauley, J. R., Application of remote-sensing techniques to hydrologic studies in selected coal-mined areas of southeastern Kansas: U.S. Geological Survey Water-Resources Investigations Report 83-4007, 33 p.

Kume, Jack, and Spinazola, J. M., 1983, Depth and thickness of selected units in Upper Permian, Upper Jurassic, and Lower Cretaceous rocks in southwestern Kansas: U.S. Geological Survey Water-Resources Investigations Report 83-4095, scale 1: 500,000, 7 sheets.

Leonard, R. B., Signor, D. C., Jorgensen, D. G., and Helgesen, J. O., 1983, Geohydrology and hydrochemistry of the Dakota aquifer, central United States: American Water Resources Association, Water Resources Bulletin, v. 19, no. 6, December 1983, p. 903-911.

Pabst, M. E., 1983a, January 1983 water levels, and data related to water-level changes, western and south-central Kansas: U.S. Geological Survey Open-File Report 83-762, 164 p.

1983--Continued

- \_\_\_\_\_ 1983b, Kansas ground-water observation-well network, 1983: U.S. Geological Survey Open-File Report 83-528, 57 p.
- Pope, L. M., Diaz, A. M., and Butler, M. K., 1983, Urban water-quality data and statistical summaries for selected sites in the Shunganunga Creek basin, Topeka, Kansas: Kansas Department of Health and Environment Bulletin B2-49, 203 p.
- Spinazola, J. M., and Dealy, M. T., Hydrology of the Ogallala aquifer in Ford County, southwestern Kansas: U.S. Geological Survey Water-Resources Investigations Report 83-4226, 58 p.
- Spruill, T. B., 1983, Relationship of nitrate concentrations to distance of well screen openings below casing water levels: American Water Resources Association, Water Resources Bulletin, v. 19, no. 6, December 1983, p. 977-981.
- \_\_\_\_\_ 1983, Statistical summaries of selected chemical constituents in Kansas ground-water supplies, 1976-81: U.S. Geological Survey Open-File Report 83-263, 29 p.

## SUBJECT INDEX

This index was compiled by scanning report titles only. It is intended as an aid in the initial search for topical subject matter. Listings under each topic are given by author and year of publication. For a complete bibliographic citation, the reader should refer to "Alphabetical Listing by Author," beginning on page 5.

### Abilene

Gillespie, J. B., and Hargadine, G. D.,  
1981

### Allen County

Miller, D. E., 1969

### Alluvial channels

Osterkamp, W. R., 1978c; 1979c, 1980

### Aquifer tests

McElwee, C. D., 1977  
U.S. Geological Survey, 1958

### Arbuckle rocks

Gogel, Tony, 1981b

### Arkansas River

Barker, R. A., and others, 1981; 1983  
Dunlap, L. E., and others, 1983  
Fader, S. W., and Morton, R. B., 1975b  
Jordan, P. R., 1978a  
Kansas Water Board, 1958-62  
Lohman, S. W., and Burtis, V. M., 1953  
Lohman, S. W., and others, 1953  
Osterkamp, W. R., 1977  
Slichter, C. S., 1906  
Snipes, R. J., and others, 1974  
U.S. Geological Survey, 1955; 1980b;  
1981b  
Williams, C. C., 1946

### Atchison County

Frye, J. C., 1941  
Ward, J. R., 1971; 1973

### Availability of ground water

Bayne, C. K., and Ward, J. R., 1967  
Fishel, V. C., 1963  
La Rocque, G. A., Jr., 1966  
Lohman, S. W., and others, 1942; 1953

### Barber County

Williams, C. C., and Bayne, C. K. 1946

### Barton County

Latta, B. F., 1950

### Base flow

Busby, M. W., and Armentrout, G. W., 1965  
Furness, L. W., and others, 1966  
Furness, L. W., and Busby, M. W. 1967

### Bibliography

Roberts, R. S., and Hodson, W. G., 1966

### Big Blue River

Leonard, R. B., 1969b

### Bonner Springs

Dufford, A. E., 1953

### Boreholes

Darton, N. H., 1905a

### Brine

Albert, C. D., 1964  
Angino, E. E., and Morgan, C. O., 1966  
Dingman, R. J., and Angino, E. E., 1969  
Leonard, R. B., 1964a  
McNellis, J. M., and others, 1969

### Brown County

Bayne, C. K., and Schoewe, W. H., 1967

### Buried valleys

Denne, J. E., 1979

### Canary Islands

Dingman, R. J., and Nunez, Jose, 1969

### Cedar Bluff Reservoir

Leonard, R. B., 1969a; 1970; 1974  
Leonard, R. B., and Stoltenberg, G. A.,  
1972

### Cenozoic deposits

Bayne, C. K., and Ward, J. R., 1969

### Central Kansas

Bayne, C. K., and others, 1971  
Bayne, C. K., and Ward, J. R., 1974  
Clement, R. W., and Johnson, D. G., 1982  
Fader, S. W., 1975  
Gillespie, J. B., and others, 1970  
Gillespie, J. B., and Hargadine, G. D.,  
1981  
Gillespie, J. B., and Slagle, S. E., 1972  
Gogel, Tony, 1981a

### Central Midwest Regional aquifer

Jorgensen, D. G., and Signor, D. C., 1981

### Central United States

James, I. C., II, 1968  
Leonard, R. B., and others, 1983

### Channel geometry

Burns, C. V., 1971  
Hedman, E. R., and Kastner, W. M., 1972;  
1974; 1976  
Hedman, E. R., and others, 1974  
Hedman, E. R., and Osterkamp, W. R., 1982  
Osterkamp, W. R., 1978a; 1979a  
Osterkamp, W. R., and Hedman, E. R., 1977;  
1979; 1981; 1982  
Osterkamp, W. R., and others, 1981; 1982

### Chase County

O'Connor, H. G., 1949; 1951

### Chemical quality of ground water

Berry, D. W., 1952  
Bradley, Edward, and Johnson, C. R., 1957  
Dingman, R. J., 1969  
Leonard, R. B., 1970  
Leonard, R. B., and others, 1983  
Spruill, T. B., 1982; 1983a; 1983b  
Spruill, T. B., and Kenny, J. F., 1981  
Williams, C. C., 1948

Chemical quality of surface water

Bevans, H. E., 1982  
Bevans, H. E., and Diaz, A. M., 1980  
Clarke, F. W., 1924  
Diaz, A. M., 1962b; 1965  
Durum, W. H., 1951b; 1953  
Jordan, P. R., and others, 1964  
Leonard, R. B., 1964b; 1964c; 1969b  
Leonard, R. B., and Shah, K. L., 1964  
Mayes, J. L., and Culbertson, Don, 1964  
Mayes, J. L., and Diaz, A. M., 1965  
Mundorff, J. C., and Waddell, K. M., 1966

Cherokee County

Pope, L. M., and Diaz, A. M., 1982

Cheyenne County

Keene, K. M., and others, 1969  
Prescott, G. C., Jr., 1953a

Cimarron River

Kansas Water Board, 1958-62  
Schumm, S. A., and Lichty, R. W., 1961;  
1963  
U.S. Geological Survey, 1966a

Clay County

Walters, K. L., and Bayne, C. K., 1959

Climate characteristics

Burns, C. V., and others, 1976  
Busby, M. W., 1964  
Jordan, P. R., 1979a  
Meyers, J. S., 1962  
Perry, C. A., 1980  
Thomas, H. E., 1962

Cloud County

Bayne, C. K., and Walters, K. L., 1959  
Fishel, V. C., 1948b

Coal hydrology

Bevans, H. E., 1980  
Bevans, H. E., and Diaz, A. M., 1980  
Kenny, J. F., and others, 1982  
Kenny, J. F., and McCauley, J. R., 1982;  
1983  
Osterkamp, W. R., and Hedman, E. R., 1979  
Parker, H. N., 1911  
Pope, L. M., and Diaz, A. M., 1982

Colorado

Jenkins, E. D., 1971  
Jenkins, E. D., and Hurr, R. T., 1969  
Pearl, R. H., 1968

Computer applications

Angino, E. E., and Morgan, C. O., 1966  
Barker, R. A., and others, 1981; 1983  
Dabiri, H. E., and others, 1970  
Dunlap, L. E., 1980  
Dunlap, L. E., and others, 1980; 1983  
Dunlap, L. E., and Spinazola, J. M., 1981b

Computer applications--Continued

Jorgensen, D. G., and others, 1982  
Jorgensen, D. G., and Stullken, L. E., 1981  
Leonard, R. B., and Morgan, C. O., 1970  
Longwill, S. M., and others, 1980  
Lowell, B. H., and others, 1970  
McClain, T. J., and Jenkins, E. D., 1971  
McElwee, C. D., and Yukler, M. R., 1978  
McNellis, J. M., and Morgan, C. O., 1969  
McNellis, J. M., and others, 1968; 1969  
Morgan, C. O., and others 1966; 1969  
Morgan, C. O., and McNellis, J. M., 1969a;  
1969b; 1971  
Richards, D. B., and Dunaway, T. W., 1972  
Ropes, L. H., and others, 1969  
Rosenshein, J. S., and McNellis, J. M., 1979

Confined aquifers

Ehlig, Christine, and Halepaska, J. C., 1976

Cottonwood Falls

Prosser, C. S., and Beede, J. W., 1904

Cowley County

Bayne, C. K., 1962

Crawford County

Pope, L. M., and Diaz, A. M., 1982

Cretaceous rocks

Keene, K. M., and Bayne, C. K., 1977  
Kume, Jack, and Spinazola, J. M., 1983

Dakota aquifer

Leonard, R. B., and others, 1983  
Lobmeyer, D. H., and Weakly, E. C., 1978; 1979

Decatur County

Hodson, W. G., 1969  
Keene, K. M., and others, 1969

Dickinson County

Gutentag, E. D., and Galli-Olivier, Carlos, 1969  
Latta, B. F., 1949

Dissolved solids

Bevans, H. E., 1980

Doniphan County

Bayne, C. K., 1971; 1973  
Fader, S. W., 1968

Douglas County

Gogel, Tony, 1981b  
O'Connor, H. G., 1960

Downs

Dingman, R. J., 1969

Eastern Kansas

Clement, R. W., 1983  
Kenny, J. F., and others, 1982

Edwards County

McLaughlin, T. G., 1949

Elk County

Bayne, C. K., 1958

Ellis County

Frye, J. C., and Brazil, J. J., 1943  
Leonard, A. R., and Berry, D. W., 1961

Ellsworth County

Bayne, C. K., and others, 1971  
Waterman, C. D., 1952

Elm Creek

Williams, C. C., and Bayne, C. K., 1946

Environmental assessment

Albin, D. R., 1975  
Kenny, J. F., and others, 1982

"Equus beds"

Lohman, S. W., and Frye, J. C., 1940  
Stramel, G. J., 1956; 1966

Evaporation

Meyers, J. S., 1962

Finney County

Dunlap, L. E., and others, 1983  
Gutentag, E. D., and others, 1972  
Latta, B. F., 1944  
Lindgren, R. J., 1982  
Meyer, W. R., and others, 1969; 1970

Flood frequency

Clement, R. W., 1983  
Ellis, D. W., and Edelen, G. W., Jr.,  
1960  
Irza, T. J., 1966  
Jordan, P. R., and Irza, T. J., 1975

Floods

Clement, R. W., and Johnson, D. G., 1982  
Ellis, D. W., and others, 1963  
Follansbee, Robert, and Spiegel, J. B.,  
1937  
Furness, L. W., 1965a  
Hauth, L. D., and Carswell, W. J., Jr., 1978  
James, I. C., II, 1967  
Murphy, E. C., 1904; 1905  
Snipes, R. J., and others, 1974  
U.S. Geological Survey, 1952; 1959

Flow duration

Furness, L. W., 1959  
Jordan, P. R., 1983

Fluvial morphology

Osterkamp, W. R., 1979b; 1980

Ford County

Lobmeyer, D. H., and Weakly, E. C., 1978;  
1979

Ford County--Continued

Spinazola, J. M., and Dealy, M. T., 1983  
Waite, H. A., 1942

Geary County

Latta, B. F., 1949

Geohydrology

Bayne, C. K., 1971; 1973  
Dunlap, L. E., 1982  
Dunlap, L. E., and others, 1980; 1983  
Fader, S. W., and others, 1964  
Fader, S. W., and Stullken, L. E., 1976;  
1977; 1978  
Gutentag, E. D., and others, 1980; 1981  
Kume, Jack, and Spinazola, J. M., 1982  
Lane, C. W., 1965  
Leonard, R. B., and others, 1983  
Meyer, W. R., and others, 1970  
O'Connor, H. G., 1973  
Richards, D. B., and Dunaway, T. W., 1972  
Ward, J. R., 1971; 1973; 1974  
Waterman, W. D., 1952  
Winslow, J. D., 1972

Geology

Bayne, C. K., 1956a; 1956b; 1960; 1962  
Bayne, C. K., and others, 1971  
Bayne, C. K., and Schoewe, W. H., 1967  
Bayne, C. K., and Walters, K. L., 1959  
Bayne, C. K., and Ward, J. R., 1974  
Berry, D. W., 1952  
Byrne, F. E., and McLaughlin, T. G., 1947  
Darton, N. H., 1905b  
Davis, S. N., and Carlson, W. A., 1952  
Fent, O. S., 1950  
Fishel, V. C., 1948b  
Fishel, V. C., and Leonard, A. R., 1955  
Frye, J. C., 1942; 1945  
Frye, J. C., and Leonard, A. R., 1949  
Hay, Robert, 1890  
Hodson, W. G., 1959; 1963; 1965; 1969  
Hodson, W. G., and Wahl, K. D., 1960  
Johnson, C. R., 1958  
Johnson, W. D., Jr., and others, 1967  
Jungmann, W. L., 1966  
Jungmann, W. L., and Williams, C. C., 1968  
Lane, C. W., 1960  
Latta, B. F., 1941; 1944; 1948a; 1950  
Layton, D. W., and Berry, D. W., 1973  
Leonard, A. R., 1952  
Leonard, A. R., and Berry, D. W., 1961  
Lohman, S. W., and Frye, J. C., 1940  
Mack, L. E., 1962  
McGovern, H. E., 1971  
McLaughlin, T. G., 1942; 1943; 1946; 1949  
McNellis, J. M., 1973  
Miller, D. E., 1966; 1969  
O'Connor, H. G., 1960; 1971; 1973; 1974  
Pearl, R. H., 1968  
Prescott, G. C., Jr., 1948; 1951; 1953a;  
1953b; 1955  
Prescott, G. C., Jr., and others, 1954  
Schrader, F. C., and Haworth, Erasmus, 1906

### Geology--Continued

SeEVERS, W. J., 1969  
Stramel, G. J., and others, 1958  
Waite, H. A. 1942; 1947  
Walters, K. L., 1953; 1954; 1956; 1961  
Walters, K. L., and Bayne, C. K., 1959  
Waterman, W. D., 1952  
Williams, C. C., and Lohman, S. W., 1949

### Geomorphology

Osterkamp, W. R., and others, 1978

### Glacial deposits

Frye, J. C., and Walters, K. L., 1950

### Gorham

Latta, B. F., 1948b

### Gove County

Hodson, W. G., and Wahl, K. D., 1960  
Keene, K. M., and Pabst, M. E., 1971  
McClain, T. J., and others, 1975

### Graham County

Prescott, G. C., Jr., 1955  
Spinazola, J. M., 1981

### Grant County

Winslow, J. D., and others, 1964; 1968  
Fader, S. W., and others, 1964  
McLaughlin, T. G., 1946  
Nuzman, C. E., and Meyer, W. R., 1965

### Gray County

Latta, B. F., 1944  
McGovern, H. E., and Long, W. A., 1974

### Great Bend

Clement, R. W., and Johnson, D. G., 1982

### Great Bend Prairie

Fader, S. W., and Stullken, L. E., 1976;  
1977  
Stullken, S. W., and Fader, S. W., 1976;  
1978

### Great Plains

Darton, N. H., 1905b  
Hay, Robert, 1895  
Landis, E. R., 1960

### Greeley County

Prescott, G. C., Jr., and others, 1954  
Slagle, S. E., and Weakly, E. C., 1976  
Stullken, L. E., and others, 1974

### Ground-water discharge

Gillespie, J. B., and Hargadine, G. D.,  
1981  
Gogel, Tony, 1981a

### Ground-water levels

Bedinger, M. S., and Tanaka, H. H., 1962

### Ground-water levels--Continued

Broeker, M. E., and Fishel, V.;  
1962  
Broeker, M. E., and others, 1977  
Broeker, M. E., and McNellis, J. M., 1973  
Broeker, M. E., and Winslow, J. D., 1963; 1964;  
1966  
Dunlap, L. E., 1980  
Dunlap, L. E., and Spinazola, J. M., 1981b  
Fishel, V. C., 1956  
Fishel, V. C., and Broeker, M. E., 1960  
Fishel, V. C., and others, 1959  
Fishel, V. C., and Mason, B. J., 1957; 1958  
La Rocque, G. A., Jr., 1966  
Lohman, S. W., and others, 1953  
Nuzman, C. E., and Meyer, W. R., 1965  
Pabst, M. E., 1977a; 1978a; 1979a; 1980; 1981;  
1982a; 1983a  
Pabst, M. E., and Gutentag, E. D., 1977; 1979  
Pabst, M. E., and Jenkins, E. D., 1973; 1974;  
1976a; 1976b  
U.S. Geological Survey, 1952  
Winslow, J. D., and others, 1964; 1968

### Ground-water movement

Dingman, R. J., 1969  
Jorgensen, D. G., and others, 1982  
Prill, R. C., 1968; 1977  
Slichter, C. S., 1902; 1906  
Ward, P. E., and Leonard, A. R., 1961  
Wolff, H. C., 1911

### Ground-water recharge

Gillespie, J. B., and Hargadine, G. D., 1975  
Gillespie, J. B., and others, 1969; 1970; 1977  
Gillespie, J. B., and Slagle, S. E., 1972

### Ground-water resources

Bayne, C. K., 1956a; 1956b; 1958; 1960; 1962  
Bayne, C. K., and others, 1971  
Bayne, C. K., and Schoewe, W. H., 1967  
Bayne, C. K., and Walters, K. L., 1959  
Berry, D. W., 1952  
Bradley, Edward, and Johnson, C. R., 1957  
Bryne, F. E., and McLaughlin, T. G., 1947  
Darton, N. H., 1905b  
Davis, S. N., and Carlson, W. A., 1952  
Dufford, A. E., 1953  
Fader, S. W., 1968; 1974  
Fader, S. W., and Morton, R. B., 1975a; 1975b  
Fent, O. S., 1950  
Fishel, V. C., 1947a; 1948a; 1948b; 1952  
Fishel, V. C., and Leonard, A. R., 1955  
Frye, J. C., 1941; 1942; 1945  
Frye, J. C., and Brazil, J. J., 1943  
Frye, J. C., and Fishel, V. C., 1949  
Frye, J. C., and Leonard, A. R., 1949  
Gutentag, E. D., and others, 1970; 1972  
Gutentag, E. D., and Stullken, L. E., 1974;  
1976  
Haworth, Erasmus, 1897  
Hodson, W. G., 1959; 1963; 1965; 1969  
Hodson, W. G., and Wahl, K. D., 1960  
Johnson, C. R., 1956; 1958

Ground-water resources--Continued

Jungmann, W. L., 1966  
Jungmann, W. L., and Williams, C. C., 1968  
Keene, K. M., and Bayne, C. K., 1977  
Lane, C. W., 1960  
Latta, B. F., 1941; 1944; 1948a; 1948b;  
1949; 1950  
Layton, D. W., and Berry, D. W., 1973  
Leonard, A. R., 1952  
Leonard, A. R., and Berry, D. W., 1961  
Lohman, S. W., 1941; 1942  
Lohman, S. W., and Frye, J. C., 1940  
Mack, L. E., 1962  
McGovern, H. E., 1971  
McGovern, H. E., and Long, W. A., 1974  
McLaughlin, T. G., 1942; 1943; 1946;  
1949  
McNellis, J. M., 1973  
Meinzer, O. E., 1915  
Miller, D. E., 1966; 1969  
Moore, R. C., 1940  
Morton, R. B., and Fader, S. W., 1975  
O'Connor, H. G., 1949; 1951; 1953; 1955;  
1960; 1971; 1974  
Prescott, G. C., Jr., 1948; 1951; 1953a;  
1953b; 1955  
Prescott, G. C., Jr., and others, 1954  
Roberts, R. S., and Hodson, W. G., 1966  
Rosenstein, J. S., 1979  
SeEVERS, W. J., 1969  
Slagle, S. E., and Weakly, E. C., 1976  
Stramel, G. J., 1956; 1966  
Stramel, G. J., and others, 1958  
Theis, C. V., and others, 1935  
U.S. Geological Survey, 1966a  
Waite, H. A., 1942; 1947  
Walters, K. L., 1953; 1954; 1956; 1961  
Walters, K. L., and Bayne, C. K., 1959  
Williams, C. C., 1944; 1946  
Williams, C. C., and Bayne, C. K., 1946  
Williams, C. C., and Lohman, S. W., 1949

Ground-water withdrawals

Baker, C. H., Jr., 1979b; 1983  
Fader, S. W., 1967  
Kastner, W. M., 1974  
Lindgren, R. J., 1982  
Richards, D. B., and Dunaway, T. W., 1972

Hamilton County

Lobmeyer, D. H., and Sauer, C. G., 1974  
McLaughlin, T. G., 1943

Harper County

Bayne, C. K., 1960

Haskell County

Gutentag, E. D., and Stullken, L. E.,  
1974  
McLaughlin, T. G., 1946

Hays

Latta, B. F., 1948b

High Flow

Furness, L. W., and others, 1964  
Jordan, P. R., 1978b

High Plains

Johnson, W. D., 1901; 1902  
Theis, C. V., and others, 1935

High Plains aquifer

Pabst, M. E., 1982b  
Pabst, M. E., and Stullken, L. E., 1981;  
1982a; 1982b; 1982c  
Spinazola, J. M., 1982a  
Stullken, L. E., and Pabst, M. E., 1981;  
1982  
Watts, K. R., and Stullken, L. E., 1981

Hodgeman County

Lobmeyer, D. H., and Weakly, E. C., 1978;  
1979

Hutchinson

Williams, C. C., 1946

Independence

Schrader, F. C., 1908  
Schrader, F. C., and Haworth, Erasmus, 1906

Ingalls

Stramel, G. J., and others, 1958

Instrumentation

Baker, C. H., Jr., 1979a  
Carswell, W. J., Jr., 1978b  
Prill, R. C., and Meyer, W. R., 1968; 1969  
Shelton, L. R., 1978

Irrigation

Baker, C. H., Jr., 1983  
Jenkins, E. D., and Pabst, M. E., 1975  
Leonard, R. B., 1969a; 1970  
Lindgren, R. J., 1982  
Meinzer, O. E., 1915

Jackson County

Walters, K. L., 1953

Jefferson County

Winslow, J. D., 1972

Jewell County

Fader, S. W., 1968  
Fishel, V. C., and Leonard, A. R., 1955

Johnson County

O'Connor, H. G., 1971; 1973

Joplin district

Smith, W. S. T., 1905  
Smith, W. S. T., and Siebenthal, C. E.,  
1907

Junction City

Fader, S. W., 1974

- Jurassic rocks  
Kume, Jack, and Spinazola, J. M., 1983
- Kanopolis Reservoir  
Waterman, W. D., 1952
- Kansas City  
Fader, S. W., 1974  
Fishel, V. C., 1948a  
Fishel, V. C., and others, 1953  
Hauth, L. D., and Carswell, W. J., Jr., 1978
- Kansas River  
Albert, C. D., 1973  
Davis, S. N., and Carlson, W. A., 1952  
Dufford, A. E., 1953  
Fader, S. W., 1974  
Follansbee, Robert, and Spiegel, J., B., 1937  
Kansas Water Board, 1958-62  
Leeson, E. R., 1957  
Mundorff, J. C., and Scott, C. H., 1964  
Osterkamp, W. R., and others, 1981  
Winslow, J. D., and Nuzman, C. E., 1966
- Kearny County  
Dunlap, L. E., and others, 1983  
Gutentag, E. D., and others, 1970; 1972  
Lindgren, R. J., 1982  
McLaughlin, T. G., 1943
- Kingman County  
Lane, C. W., 1960
- Kiowa County  
Latta, B. F., 1948a
- Kirwin Reservoir  
Bedinger, M. S., and Tanaka, H. H., 1962  
Jorgensen, D. G., and Stullken, L. E., 1981
- Labette County  
Gogel, Tony, 1981b  
Jungmann, W. L., and Williams, C. C., 1968  
Prescott, G. C., Jr., 1948
- Ladder Creek  
Bradley, Edward, and Johnson, C. R., 1957
- Lakin  
Darton, N. H., 1920  
Gillespie, J. B., and others, 1977
- Land subsidence  
Fader, S. W., 1975
- Lane County  
Gutentag, E. D., and Stullken, L. E., 1976  
1976  
Prescott, G. C., Jr., 1951  
Stullken, L. E., and others, 1974
- Lansing  
Lohman, S. W., and Mitchell, Alexander, 1940
- Lawrence  
Davis, S. N., and Carlson, W. A., 1952  
Dufford, A. E., 1953  
Lohman, S. W., 1941
- Leakage  
Latta, B. F., 1940
- Leavenworth  
Hinds, Henry, and Greene, F. C., 1917
- Lincoln County  
Berry, D. W., 1952
- Linn  
Seevers, W. J., 1969
- Little Arkansas River  
Albert, C. D., 1964  
Albert, C. D., and Stramel, G. J., 1966  
Leonard, R. B., and Kleinschmidt, M. K., 1976  
Richards, D. B., and Dunaway, T. W., 1972
- Little Blue River  
Mundorff, J. C., and Waddell, K. M., 1966
- Logan County  
Johnson, C. R., 1958  
Keene, K. M., and Pabst, M. E., 1971  
McClain, T. J., and others, 1975
- Low flows  
Carswell, W. J., Jr., 1979  
Carswell, W. J., Jr., and Bond, S. V., 1980  
Furness, L. W., 1960  
Jordan, P. R., 1983  
Leonard, R. B., 1969b
- Lyon County  
O'Connor, H. G., 1953
- Marais des Cygnes River  
Kansas Water Board, 1958-62
- Marienthal  
Dunlap, L. E., 1980
- Marshall County  
Walters, K. L., 1954
- McPherson County  
Waterman, W. D., 1952
- Meade County  
Frye, J. C., 1940; 1942
- Methodology  
Baker, C. H., Jr., 1979b; 1983  
Bevans, H. E., 1980  
Dunlap, L. E., and Spinazola, J. M., 1981b  
Ehlig, Christine, and Halepaska, J. C., 1976  
Fishel, V. C., 1947b

Methodology--Continued

Furness, L. W., and Busby, M. W., 1967  
Halepaska, J. C., and Hartman, J. W., 1972  
Hejl, H. R., Jr., 1977a  
Jorgensen, D. G., and others, 1982  
Kastner, W. M., 1974  
Kenny, J. F., and McCauley, J. R., 1983  
Leonard, R. B., 1964a  
Lindgren, R. J., 1982  
McElwee, C. D., 1977  
Meyer, W. R., 1963  
Osterkamp, W. R., 1978a; 1979a; 1979b  
Osterkamp, W. R., and others, 1978  
Prill, R. C., and Meyer, W. R., 1968; 1969  
Skougstad, M. W., and others, 1979  
Williams, C. C., and Lohman, S. W., 1947  
Winslow, J. D., and Nuzman, C. E., 1966

Miami County

Gogel, Tony, 1981b  
Miller, D. E., 1966

Missouri River basin

Hedman, E. R., and Kastner, W. M., 1974; 1977  
Jordan, P. R., 1979a; 1979b  
Kansas Water Board, 1958-62  
La Rocque, G. A., Jr., 1966  
Osterkamp, W. R., and Hedman, E. R., 1982  
Osterkamp, W. R., and Wiseman, A. G., 1980  
U.S. Geological Survey, 1980a; 1981a

Mitchell County

Hodson, W. G., 1959  
Leonard, A. R., 1952

Montgomery County

O'Connor, H. G., 1974

Morton County

McLaughlin, T. G., 1942

Nemaha County

Ward, J. R., 1974

Neosho County

Jungmann, W. L., 1966

Neosho River

Kansas Water Board, 1958-62  
Morton, R. B., and Fader, S. W., 1975  
Williams, C. C., 1944

Ness County

Jenkins, E. D., and Pabst, M. E., 1977

Nitrate

Spruill, T. B., 1982; 1983a

North-central Kansas

Jorgensen, D. G., and Stullken, L. E., 1981

North-central Kansas--Continued

Reed, T. B., 1981  
Stullken, L. E., 1980

Northeastern Kansas

Bayne, C. K., 1971; 1973  
Bevans, H. E., 1982  
Carswell, W. J., Jr., 1978a; 1978b; 1981  
Carswell, W. J., Jr., and Bond, S. V., 1980  
Denne, J. E., 1979  
Frye, J. C., and Walters, K. L., 1950  
O'Connor, H. G., 1971; 1973  
Ward, J. R., 1971; 1973; 1974  
Winslow, J. D., 1972

North Fork Solomon River

Jorgensen, D. G., and Stullken, L. E., 1981  
Kansas Water Board, 1958-62  
Leonard, A. R., 1952

Northwestern Kansas

Jenkins, E. D., and Pabst, M. E., 1975  
Kastner, W. M., 1974  
McClain, T. J., and Jenkins, E. D., 1971  
Pabst, M. E., and Jenkins, E. D., 1973; 1976a  
Pearl, R. H., and others, 1972  
Spinazola, J. M., 1981

Norton County

Frye, J. C., and Leonard, A. R., 1949

Observation wells

Broeker, M. E., and Fishel, V. C., 1961; 1962  
Broeker, M. E., and others, 1977  
Broeker, M. E., and McNellis, J. M., 1973  
Broeker, M. E., and Winslow, J. D., 1963; 1964; 1966  
Fishel, V. C., and Broeker, M. E., 1960  
Fishel, V. C., and Mason, B. J., 1957; 1958  
Fishel, V. C., and others, 1959  
Gogel, Tony, 1981b  
Lane, C. W., and Miller, D. E., 1965  
Pabst, M. E., 1983b  
Spruill, T. B., and Kenny, J. F., 1981

Ogallala aquifer

Dunlap, L. E., and Spinazola, J. M., 1981a  
McClain, T. J., and Jenkins, E. D., 1971  
McGovern, H. E., 1971  
Spinazola, J. M., 1982b  
Spinazola, J. M., and Dealy, M. T., 1983

Ordovician rocks

Stramel, G. J., 1957

Osage County

O'Connor, H. G., 1955

- Osborne County  
Leonard, A. R., 1952
- Ottawa County  
Mack, L. E., 1962
- Parsons  
Williams, C. C., 1944
- Pawnee County  
McLaughlin, T. G., 1949
- Pawnee Valley  
Fishel, V. C., 1952
- Permian rocks  
Gogel, Tony, 1981a  
Kume, Jack, and Spinazola, J. M., 1983
- Phillips County  
Frye, J. C., and Leonard, A. R., 1949
- Pittsburg  
Stramel, G. J., 1956
- Pleistocene  
Gutentag, E. D., and Galli-Olivier, Carlos,  
1969  
McGovern, H. E., 1971
- Prairie Dog Creek  
Johnson, C. R., 1956
- Pratt County  
Layton, D. W., and Berry, D. W., 1973
- Quaternary  
Dufford, A. E., 1953  
Pearl, R. H., 1968
- Rainfall-runoff relations  
Clement, R. W., 1983  
Jordan, P. R., 1982  
Peek, C. O., and Jordan, P. R., 1978
- Rawlins County  
Keene, K. M., and others, 1969  
Walters, K. L., 1956
- Remote Sensing  
Kenny, J. F., and McCauley, J. R., 1982;  
1983
- Reno County  
Bayne, C. K., 1956b
- Republic County  
Fader, S. W., 1968  
Fishel, V. C., 1948b
- Republican River  
Dunlap, L. E., 1982  
Fader, S. W., 1968  
Follansbee, Robert, and Spiegel, J. B., 1937
- Republican River--Continued  
Kansas Water Board, 1958-62
- Reservoir storage requirements  
Carswell, W. J., Jr., 1982  
Furness, L. W., 1962  
Furness, L. W., and others, 1964
- Rice County  
Bayne, C. K., and Ward, J. R., 1974  
Fent, O. S., 1950
- Rock Creek basin  
Furness, L. W., 1965a
- Runoff  
Busby, M. W., 1963; 1964; 1966  
Furness, L. W., 1965b  
Hedman, E. R., and Kastner, W. M., 1972  
James, I. C., II, 1967
- Rush County  
Leonard, A. R., and Berry, D. W., 1961  
McNellis, J. M., 1973
- Russell  
Durum, W. H., 1953  
Latta, B. F., 1948b
- Russell County  
Frye, J. C., and Brazil, J. J., 1943  
Leonard, A. R., 1952
- Salina  
Gillespie, J. B., and Hargadine, G. D., 1981
- Saline County  
Gogel, Tony, 1981b  
Latta, B. F., 1949  
Waterman, W. D., 1952
- Saline River  
Durum, W. H., 1951b; 1953  
Jordan, P. R., and others, 1964  
Kansas Water Board, 1958-62
- Saline water  
Gillespie, J. B., and Hargadine, G. D., 1981  
Gogel, Tony, 1981a  
Leonard, R. B., and Kleinschmidt, M. K., 1976  
Leonard, R. B., and Morgan, C. O., 1970
- Salt  
Fader, S. W., 1975  
Ward, P. E., and Leonard, A. R., 1961
- Sandstone aquifers  
Kume, Jack, and Spinazola, J. M., 1982
- Saturated thickness  
Bayne, C. K., and Ward, J. H., 1969  
Gutentag, E. D., 1975  
Gutentag, E. D., and others, 1978  
Pabst, M. E., 1977b; 1978b; 1978c; 1979b; 1982b

### Scott City

Gillespie, J. B., and others, 1975

### Scott County

Gutentag, E. D., and Stullken, L. E., 1976

Stullken, L. E., and others, 1974

Waite, H. A., 1947

### Sedgwick County

Lane, C. W., 1965

Latta, B. F., 1940

### Sediment

Albert, C. D., 1962; 1969; 1973

Albert, C. D., and Stramel, G. J., 1966

Bevans, H. E., 1982

Collins, D. L., 1965

Jordan, P. R., 1979a

Jordan, P. R., and others, 1964

Mundorff, J. C., 1958; 1961

Mundorff, J. C., and Scott, C. H., 1964

Mundorff, J. C., and Waddell, K. M., 1966

Osterkamp, W. R., 1977; 1978b; 1979c; 1980

Osterkamp, W. R., and others, 1981; 1982

Osterkamp, W. R., and Wiseman, A. G., 1980

Skougstad, M. W., and others, 1979

### Seepage

Jordan, P. R., 1978b

Leonard, R. B., and Morgan, C. O., 1970

### Seward County

Byrne, F. E., and McLaughlin, T. G., 1947

### Shawnee County

Johnson, W. D., Jr., and others, 1967

### Sheridan County

Bayne, C. K., 1956a

Keene, K. M., and others, 1969

### Sherman County

Keene, K. M., and others, 1969

McClain, T. J., and Jenkins, E. D., 1971

Prescott, G. C., Jr., 1953b

### Shunganunga Creek

Pope, L. M., and others, 1983

### Smith County

Leonard, A. R., 1952

### Smoky Hill River

Gillespie, J. B., and Hargadine, G. D., 1975

Kansas Water Board, 1958-62

Latta, B. F., 1949

### Soldier Creek

Carswell, W. J., Jr., 1978a; 1978b; 1981

### Solomon River

Reed, T. B., 1981

### South-central Kansas

Fader, S. W., and Stullken, L. E., 1976; 1977; 1978

Latta, B. F., 1940

Layton, D. W., and Berry, D. W., 1973

Leonard, R. B., and Kleinschmidt, M. K., 1976

Lohman, S. W., 1942

Lohman, S. W., and Frye, J. C., 1940

Pabst, M. E., 1979a; 1980; 1981; 1982a; 1983a

Richards, D. B., and Dunaway, T. W., 1972

Stullken, L. E., and Fader, S. W., 1976

Williams, C. C., and Lohman, S. W., 1949

### Southeastern Kansas

Williams, C. C., 1948

Carswell, W. J., Jr., 1979

Kenny, J. F., and McCauley, J. R., 1982; 1983

McNellis, J. M., and others, 1969

O'Connor, H. G., 1974

Parker, H. N., 1911

Pope, L. M., and Diaz, A. M., 1982

### South Fork Ninescah River

Diaz, A. M., 1965

Kansas Water Board, 1958-62

### Southwestern Kansas

Barker, R. A., and others, 1981; 1983

Dunlap, L. E., and others, 1983

Frye, J. C., and Fishel, V. C., 1949

Gutentag, E. D., and others, 1970; 1972; 1978; 1980; 1981

Gutentag, E. D., and Stullken, L. E., 1974

Haworth, Erasmus, 1897

Hay, Robert, 1890

Jorgensen, D. G., and others, 1982

Kume, Jack, and Spinazola, J. M., 1982; 1983

Lobmeyer, D. H., and Sauer, C. G., 1974

Lobmeyer, D. H., and Weakly, E. C., 1978; 1979

McGovern, H. E., 1971

McGovern, H. E., and Long, W. A., 1974

Meyer, W. R., and others, 1970

Pabst, M. E., 1978c

Pabst, M. E., and Gutentag, E. D., 1979

Pabst, M. E., and Jenkins, E. D., 1976b

Prill, R. C., 1968; 1977

Schumm, S. A., and Lichty, R. W., 1963

Spinazola, J. M. 1982a

Spinazola, J. M., and Dealy, M. T., 1983

### Specific yield

Bayne, C. K., and Ward, J. R., 1969

### Springs

Jenkins, E. D., 1971

Peale, A. C., 1886; 1894

Ward, P. E., and Leonard, A. R., 1961

### Stafford County

Latta, B. F., 1950

### Stanton County

Fader, S. W., and others, 1964  
Latta, B. F., 1941  
Nuzman, C. E., and Meyer, W. R., 1965  
Winslow, J. D., and others, 1964; 1968

### Statistical analysis

Bevans, H. E., and Diaz, A. M., 1980  
Jordan, P. R., 1978a; 1979b  
Kastner, W. M., 1974  
Pope, L. M., and Diaz, A. M., 1982  
Pope, L. M., and others, 1983  
Spruill, T. B., 1983b

### St. Francis

Wolff, H. C., 1911

### Stream-aquifer interactions

Barker, R. A., and others, 1981; 1983  
Dunlap, L. E., and others, 1983  
Gogel, Tony, 1981a

### Streamflow characteristics

Burns, C. V., 1967; 1971; 1975  
Burns, C. V., and others, 1976  
Busby, M. W., and Armentrout, G. W., 1965  
Ellis, D. W., and Edelen, G. W., Jr., 1960  
Furness, L. W., 1957; 1959; 1960; 1962  
Furness, L. W., and others, 1964; 1966  
Hedman, E. R., and Kastner, W. M., 1972; 1974;  
1977  
Hedman, E. R., and others, 1974  
Hedman, E. R., and Osterkamp, W. R., 1982  
James, I. C., II, 1968  
Jordan, P. R., and Irza, T. J., 1975  
Osterkamp, W. R., 1978b; 1978c; 1979c  
Osterkamp, W. R., and Hedman, E. R., 1977;  
1979; 1981; 1982  
Osterkamp, W. R., and others, 1982

### Streamflow measurements

Davis, A. P., 1897  
Furness, L. W., 1957  
Geiger, C. O., and others, 1983  
Jordan, P. R., 1977; 1978a; 1979b  
Jordan, P. R., and Hedman, E. R., 1970  
Newell, F. H., 1898; 1899; 1900; 1901  
U.S. Geological Survey, 1962; 1963; 1964b;  
1965; 1966c; 1967a; 1968a; 1969a; 1970a;  
1971a; 1972a; 1973a; 1974a; 1975a; 1976;  
1977; 1978a; 1978b; 1979; 1980a; 1980b;  
1981a; 1981b; 1982

### Stevens County

McLaughlin, T. G., 1946

### Sulfate

Bevans, H. E., 1980

### Sumner County

Walters, K. L., 1961

### Syracuse

Darton, N. H., 1920

### Thomas County

Frye, J. C., 1945  
Keene, K. M., and others, 1969

### Topeka

Winslow, J. D., and Nuzman, C. E., 1966  
Pope, L. M., and others, 1983  
U.S. Geological Survey, 1958; 1959

### Towanda

Leonard, R. B., and Shah, K. L., 1964

### Traveltimes

Leonard, R. B., 1969b

### Trego County

Hodson, W. G., 1965  
Leonard, A. R., and Berry, D. W., 1961

### Unconfined aquifers

Ehlig, Christine, and Halepaska, J. C., 1976  
Meyer, W. R., 1963

### Unconsolidated aquifer

Gutentag, E. D., 1975  
Gutentag, E. D., and others, 1978  
Pabst, M. E., 1977b; 1978b; 1978c; 1979b

### United States

Rosenshein, J. S., 1979

### Uranium

Landis, E. R., 1960

### Urban hydrology

Hejl, H. R., Jr., 1977a  
James, I. C., II, 1967  
O'Connor, H. G., 1973  
Peek, C. O., and Jordan, P. R., 1978  
Pope, L. M., and others, 1983

### Verdigris River

Fader, S. W., and Morton, R. B., 1975a  
Kansas Water Board, 1958-62

### Victoria

Latta, B. F., 1948b

### Waconda Lake

Jorgensen, D. G., and Stullken, L. E., 1981  
Reed, T. B., 1981

### Walker

Latta, B. F., 1948b

### Wallace County

Hodson, W. G., 1963  
Keene, K. M., and Pabst, M. E., 1971  
McClain, T. J., and others, 1975

### Walnut River

Diaz, A. M., 1962b  
Kansas Water Board, 1958-62  
Leonard, R. B., 1964a; 1964b; 1964c; 1972  
Leonard, R. B., and Shah, K. L., 1964

### Water development

Jenkins, E. D., and Pabst, M. E., 1975  
Jorgensen, D. G., and others, 1982

### Water problems

Kansas Water Board, 1958-62

### Water quality

Culbertson, D. M., 1963  
Diaz, A. M., 1962a  
Leonard, R. B., 1972; 1974  
Leonard, R. B., and Stoltenberg, G. A., 1972  
Morgan, C. O., and McNellis, J. M., 1969b  
Morgan, C. O., and others, 1966  
Parker, H. N., 1911  
Pope, L. M., and Diaz, A. M., 1982  
Pope, L. M., and others, 1983  
Ropes, L. H., and others, 1969  
Skougstad, M. W., and others, 1979  
U.S. Geological Survey, 1966b; 1967b; 1968b;  
1970b; 1970c; 1971b; 1971c; 1972b; 1973b;  
1974b; 1975b; 1976; 1977; 1978a; 1978b;  
1979; 1980a & b; 1981a & b; 1982  
Waterman, W. D., 1952

### Water resources

Albin, D. R., 1975  
Fishel, V. C., and others, 1953  
Gannett, Henry, 1898  
Geiger, C. O., and others, 1983  
Hay, Robert, 1895  
Lobmeyer, D. H., and Sauer, C. G., 1974  
McClain, T. J., and others, 1975  
Pearl, R. H., and others, 1972  
Petri, L. R., and others, 1964  
Smith, W. S. T., 1905

### Water-resources investigations

Kenny, J. F., and Combs, L. J., 1983  
Lohman, S. W., and Burtis, V. M., 1953  
McGovern, H. E., and Combs, L. J., 1979; 1981  
Newell, F. H., 1895  
U.S. Geological Survey, 1964a; 1966d; 1969b;  
1972a; 1978c; 1978d; 1978e

### Water supply

Dunlap, L. E., and others, 1980  
Frye, J. C., 1940  
Kume, Jack, and others, 1979  
Lane, C. W., and others, 1962  
Latta, B. F., 1948b  
Lohman, S. W., 1942  
Lohman, S. W., and Mitchell, Alexander, 1940  
Lohman, S. W., and others, 1942  
Parker, H. N., 1911  
U.S. Geological Survey, 1955  
Williams, C. C., and Lohman, S. W., 1947; 1949

### Water temperatures

Burns, C. V., 1975

### Water use

Baker, C. H., Jr., 1979a  
U.S. Geological Survey, 1955  
Wolff, H. C., 1911

### Well logs

Lane, C. W., and Miller, D. E., 1965  
Morgan, C. O., and McNellis, J. M., 1971

### Western Kansas

Baker, C. H., Jr., 1979b; 1983  
Gillespie, J. B., and Hargadine, G. D., 1975  
Gillespie, J. B., and others, 1977  
Gutentag, E. D., and Stullken, L. E., 1976  
Jordan, P. R., 1977; 1982  
Pabst, M. E., 1977a; 1978a; 1979a; 1980; 1981;  
1982a; 1983a  
Slichter, C. S., 1906

### Western United States

Hedman, E. R., and Osterkamp, W. R., 1982  
Meyers, J. S., 1962  
Osterkamp, W. R., and others, 1982

### West-central Kansas

Dunlap, L. E., 1980  
Dunlap, L. E., and others, 1980  
Dunlap, L. E., and Spinazola, J. M., 1981a;  
1981b  
Gutentag, E. D., 1975  
Jenkins, E. D., and Pabst, M. E., 1977  
McClain, T. J., and others, 1975  
Pabst, M. E., 1977b; 1978b; 1979b; 1982b  
Pabst, M. E., and Gutentag, E. D., 1977  
Pabst, M. E., and Jenkins, E. D., 1974  
Spinazola, J. M., 1982b

### Wet Walnut Creek

Gillespie, J. B., and others, 1969; 1970  
Gillespie, J. B., and Slagle, S. E., 1972

### Whitewater River

Leonard, R. B., and Shah, K. L., 1964

### Wichita

Ellis, D. W., and others, 1963  
Lane, C. W., and Miller, D. E., 1965  
Lane, C. W., and others, 1962  
Meinzer, O. E., 1915  
Peek, C. O., and Jordan, P. R., 1978  
Petri, L. R., and others, 1964  
Williams, C. C., and Lohman, S. W., 1947; 1949

### Wichita County

Kume, Jack, and others, 1979  
Prescott, G. C., Jr., and others, 1954  
Slagle, S. E., and Weakly, E. C., 1976  
Stullken, L. E., and others, 1974

### Winfield

Leonard, R. B., and Shah, K. L., 1964